

6034 744089

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## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Jackie HO Examiner #: 75798 Date: 9/10/04  
 Art Unit: 3731 Phone Number 30 \_\_\_\_\_ Serial Number: 101003149  
 Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

See attachment.

+ medical device either coated or made of the material having the formula as claimed.  
 or just the formula as claimed alone being addressed in any where.

(MOST ALL OF STENT ART WAS X=O CASE)

## STAFF USE ONLY

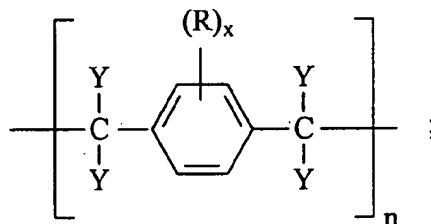
	Type of Search	Vendors and cost where applicable
Searcher: <u>ED</u>	NA Sequence (#) _____	STN <u>\$ 778.20</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog <u>(subsets)</u>
Searcher Location: _____	Structure (#) <u>✓ (2)</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic <u>✓ (and)</u>	Dr.Link _____
Date Completed: <u>9-17-04</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>5</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>125</u>	Other _____	Other (specify) _____

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the subject application, and please amend the claims as follows:

Claim 1. (currently amended) A stent-graft endoprosthesis comprising:  
a seamless tubular graft of biocompatible polymeric material having a wall thickness defining a luminal surface and an exterior surface;  
a radially expandable coated stent securably, circumferentially and axially disposed over said exterior surface, wherein said coated stent is coated with said biocompatible polymeric material;

wherein said biocompatible polymeric material ~~comprises~~ consists essentially of poly-para-xylylene having a formula of



wherein n is from about 10 to about 10,000,

x is from 0 to 4,

R, which can be the same or different, is alkyl, aryl, alkenyl, amino, cyano, carboxyl, alkoxy, hydroxylalkyl, carbalkoxy, hydroxyl, nitro, chlorine, bromine, iodine and fluorine, and

Y, which can be the same or different, is hydrogen, chlorine, bromine, iodine and fluorine.

Claim 2. (original) The endoprosthesis of claim 1 wherein Y is hydrogen, x is from 0 to 2 and, when x is 1 or 2, R is chlorine.

=> file reg

FILE 'REGISTRY' ENTERED AT 10:45:49 ON 17 SEP 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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=> display history full 11-

FILE 'REGISTRY' ENTERED AT 09:16:35 ON 17 SEP 2004

L1 1 SEA 25722-33-2  
L2 1 SEA 9052-19-1  
L3 2 SEA L1 OR L2  
L4 88 POLYLINK L3  
L5 86 SEA L4 NOT L3

FILE 'HCA' ENTERED AT 09:23:22 ON 17 SEP 2004

L6 1622 SEA L3  
L7 3054 SEA L5  
L8 3591 SEA STENT? OR GRAFT?(3A) (PROSTHE? OR BIOPROSTHE? OR  
ENDOPROSTHE?)  
L9 2608 SEA BIOCOMPAT?(3A) (POLYM? OR HOMOPOLYM? OR COPOLYM? OR  
TERPOLYM? OR RESIN? OR PLASTIC? OR THERMOPLASTIC? OR  
THERMOSET?)  
E COATINGS/CV  
L10 43468 SEA "COATING(S)"/CV OR COATINGS/CV  
E COATING MATERIALS/CV  
L11 250149 SEA "COATING MATERIALS"/CV  
E COATING PROCESS/CV  
L12 113100 SEA "COATING PROCESS"/CV  
E MEDICAL GOODS/CV  
L13 26739 SEA "MEDICAL GOODS"/CV  
E PROSTHE?  
L14 37194 SEA PROSTHE?  
L15 141711 SEA (VAPOR? OR VAPOUR?) (2A) DEPOSIT?  
L16 25 SEA L6 AND (L8 OR L9)  
L17 43 SEA L6 AND L14

FILE 'HCA' ENTERED AT 09:42:02 ON 17 SEP 2004

L18 46 SEA L6 AND L13  
L19 30 SEA (L17 OR L18) AND (L10 OR L11 OR L12)  
L20 24 SEA (L17 OR L18) AND L15  
L21 11 SEA L17 AND L18  
L22 1 SEA L7 AND (L8 OR L9)  
L23 6 SEA L7 AND L14  
L24 10 SEA L7 AND L13  
L25 2 SEA L23 AND L24

L26 2 SEA (L23 OR L24) AND (L10 OR L11 OR L12)  
L27 2 SEA (L23 OR L24) AND L15  
L28 99875 SEA (CVD OR (CHEMICAL? OR CHEM) (2A) (VAPOR? OR VAPOUR?) (2A  
DEPOSIT? OR OMCVD OR MOCVD OR LPCVD OR PECVD OR HFCVD  
OR ULPCVD OR PACVD OR PCVD)/BI,AB  
L29 8 SEA (L17 OR L18) AND L28  
L30 0 SEA (L23 OR L24) AND L28

FILE 'REGISTRY' ENTERED AT 09:50:30 ON 17 SEP 2004

E POLYOTHER/PCT  
L31 227584 SEA POLYOTHER/PCT  
E MANUAL REGISTRATION/PCT  
L32 137794 SEA "MANUAL REGISTRATION"/PCT  
L33 359586 SEA L31 OR L32

FILE 'LREGISTRY' ENTERED AT 09:51:18 ON 17 SEP 2004

L34 STR

FILE 'REGISTRY' ENTERED AT 10:05:59 ON 17 SEP 2004

L35 50 SEA SUB=L33 SSS SAM L34  
L36 SCR 2127  
L37 50 SEA SUB=L33 SSS SAM L34 NOT L36  
D QUE STAT  
L38 SCR 2043  
L39 50 SEA SSS SAM L34 AND L38 NOT L36  
L40 STR L34  
L41 STR L34  
L42 37 SEA SSS SAM (L40 OR L41) NOT L36  
L43 50 SEA SSS SAM (L40 OR L41) AND L38 NOT L36  
L44 STR L40  
L45 STR L41  
L46 50 SEA SSS SAM (L44 OR L45) AND L38 NOT L36  
D QUE STAT  
L47 4820 SEA SSS FUL (L44 OR L45) AND L38 NOT L36  
SAV L47 HO149/A  
L48 995 SEA L47 AND L33  
L49 363 SEA L48 AND 1/NRS AND 1/NRRS

FILE 'HCA' ENTERED AT 10:28:34 ON 17 SEP 2004

L50 1979 SEA L49  
L51 20 SEA L50 AND (L8 OR L9)  
L52 26 SEA L50 AND L14  
L53 39 SEA L50 AND L13  
L54 7 SEA L52 AND L53  
L55 27 SEA (L52 OR L53) AND (L10 OR L11 OR L12)  
L56 17 SEA (L52 OR L53) AND L15

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L57 629 POLYLINK L49  
L58 266 SEA L57 NOT L49

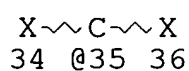
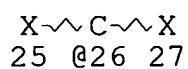
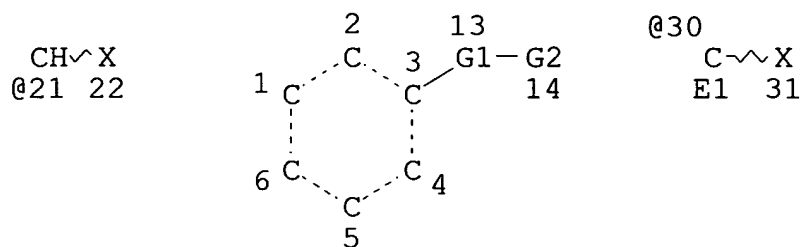
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L60 10 SEA L59 AND (L8 OR L9)  
L61 23 SEA L59 AND L13  
L62 27 SEA L59 AND L14  
L63 8 SEA L61 AND L62  
L64 11 SEA (L61 OR L62) AND (L10 OR L11 OR L12)  
L65 13 SEA (L61 OR L62) AND L15  
L66 19 SEA L21 OR L29 )  
L67 36 SEA (L16 OR L19 OR L20) NOT L66  
L68 19 SEA L17 NOT (L66 OR L67)  
L69 15 SEA L66 AND (1900-2001/PRY OR 1900-2001/PY)  
L70 27 SEA L67 AND (1900-2001/PRY OR 1900-2001/PY)  
L71 17 SEA L68 AND (1900-2001/PRY OR 1900-2001/PY)  
L72 3 SEA (L22 OR L25 OR L26 OR L27) NOT (L69 OR L70 OR L71)  
L73 9 SEA (L23 OR L24) NOT (L69 OR L70 OR L71 OR L72)  
L74 3 SEA L72 AND (1900-2001/PRY OR 1900-2001/PY)  
L75 6 SEA L73 AND (1900-2001/PRY OR 1900-2001/PY)  
L76 5 SEA (L54 OR L56) NOT (L69 OR L70 OR L71 OR L74 OR L75)  
L77 5 SEA L55 NOT (L69 OR L70 OR L71 OR L74 OR L75 OR L76)  
L78 10 SEA L76 OR L77  
L79 0 SEA L78 AND (1900-2001/PY OR 1900-2001/PRY)  
L80 2 SEA (L60 OR L63 OR L64 OR L65) NOT (L69 OR L70 OR L71 OR  
L74 OR L75)  
L81 0 SEA L80 AND (1900-2001/PY OR 1900-2001/PRY)

FILE 'REGISTRY' ENTERED AT 10:45:49 ON 17 SEP 2004

=> d 147 que stat

L36 SCR 2127  
L38 SCR 2043  
L44 STR



@39 C E2

VAR G1=CH2/21/26

VAR G2=30/35/39

NODE ATTRIBUTES:

HCOUNT IS E1 AT 30

HCOUNT IS E2 AT 39

CONNECT IS E3 RC AT 6

CONNECT IS E3 RC AT 30

CONNECT IS E4 RC AT 35

CONNECT IS E2 RC AT 39

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

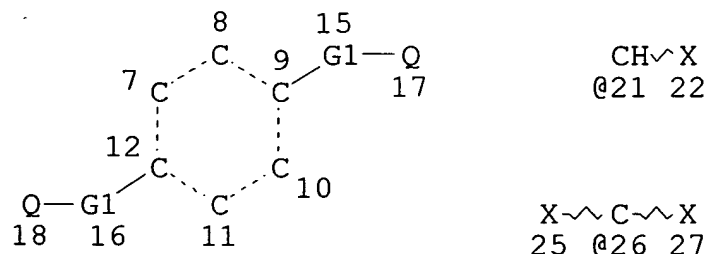
GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L45 STR



VAR G1=CH2/21/26

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 15

## STEREO ATTRIBUTES: NONE

L47 4820 SEA FILE=REGISTRY SSS FUL (L44 OR L45) AND L38 NOT L36

100.0% PROCESSED 77398 ITERATIONS ( 4 INCOMPLETE) 4820 ANSWERS  
SEARCH TIME: 00.00.02

=&gt; file hca

FILE 'HCA' ENTERED AT 10:46:40 ON 17 SEP 2004

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=&gt; d 169 1-15 cbib abs hitstr hitind

L69 ANSWER 1 OF 15 HCA COPYRIGHT 2004 ACS on STN

138:374246 Vapor deposition process for producing a polymeric  
stent-graft tubular structure. Dimatteo, Kristian; Thistle, Robert  
C. (Boston Scientific Corporation/Scimed Life Systems, Inc., USA).  
U.S. Pat. Appl. Publ. US 2003093141 A1 20030515, 13 pp. (English).  
CODEN: USXXCO. APPLICATION: US 2001-3149 20011102.

AB A stent-graft endoprosthesis is provided. The graft is a  
non-textile graft made from biocompatible polymers. The  
biocompatible polymers include poly(p-xylylene) polymeric material,  
e.g., Parylene C. The stent is also coated with a poly(p-xylylene)  
polymeric material. The graft is formed by vacuum vapor deposition  
of diradicals forming the poly(p-xylylene) material. The stent is  
also coated with the poly(p-xylylene) material by vacuum vapor  
deposition.

IT 9052-19-1P, Parylene C 25722-33-2P,  
Poly(p-xylylene)

(vapor deposition process for producing stent-graft  
endoprosthesis based on biocompatible polyxylylene)

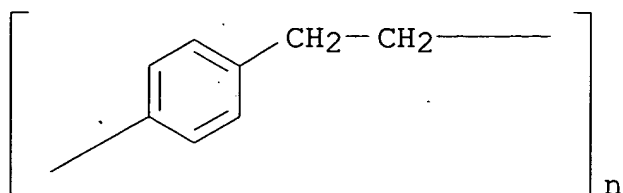
RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)

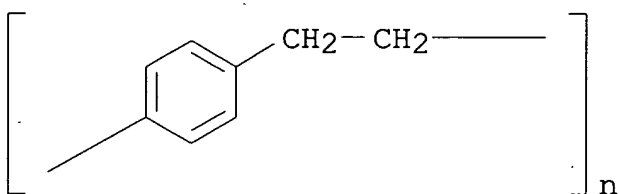


- IC ICM A61F002-06  
ICS B29C031-00
- NCL 623001130; 264238000; 623001440
- CC 63-7 (Pharmaceuticals)  
Section cross-reference(s): 37, 42
- IT **Prosthetic materials and Prosthetics**  
(endoprosthesis; vapor deposition process for producing stent-graft endoprosthesis based on biocompatible polyxylylene)
- IT **Prosthetic materials and Prosthetics**  
(implants; vapor deposition process for producing stent-graft endoprosthesis based on biocompatible polyxylylene)
- IT **Medical goods**  
(stents; vapor deposition process for producing stent-graft endoprosthesis based on biocompatible polyxylylene)
- IT **9052-19-1P, Parylene C 25722-33-2P, Poly(p-xylylene)**  
(vapor deposition process for producing stent-graft endoprosthesis based on biocompatible polyxylylene)
- L69 ANSWER 2 OF 15 HCA COPYRIGHT 2004 ACS on STN
- 138:175944 Coated implantable medical device for controlled release of immunosuppressants. Ragheb, Anthony O.; Fearnot, Neal E.; Voorhees, William D.; Kozma, Thomas G.; Bates, Brian L.; Osborne, Thomas A. (Cook Incorporated, USA). U.S. Pat. Appl. Publ. US 2003036794 A1 20030220, 23 pp., Cont.-in-part of U.S. Ser. No. 27,054. (English). CODEN: USXXCO. APPLICATION: US 2002-223415 20020819. PRIORITY: US 1995-484532 19950607; US 1996-645646 19960516; US 1997-PV38459 19970220; US 1998-27054 19980220.
- AB A coated implantable medical device comprises a structure adapted for introduction into the vascular system, esophagus, trachea, colon, biliary tract, or urinary tract, and at least one layer of an immunosuppressive agent posited over at least one surface of the structure. Optionally, the device can include at least one porous, preferably polymeric layer posited over the layer of immunosuppressive agent, and can alternatively or addnl. include at least one coating layer posited on one surface of the structure, the at least one layer of immunosuppressive agent being posited in turn on at least a portion of the coating layer. The porous layer and the coating layer each provide for the controlled release of the



bioactive material from the device. The structure is preferably configured as a coronary stent. The polymer of the porous layer is preferably applied by vapor or plasma deposition. It is particularly preferred that the polymer is a polyamide, parylene or a parylene deriv. which is deposited without solvents, heat or catalysts, but rather by condensation of a monomer vapor.

IT 25722-33-2, Parylene  
(coated implantable medical device providing controlled release of immunosuppressant)  
RN 25722-33-2 HCA  
CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61F002-06  
NCL 623001150; 623001420; 623001460; 424423000  
CC 63-7 (Pharmaceuticals)  
Section cross-reference(s): 38  
IT **Prosthetic materials and Prosthetics**  
(alloys, implants; coated implantable medical device providing controlled release of immunosuppressant)  
IT **Prosthetic materials and Prosthetics**  
(implants; coated implantable medical device providing controlled release of immunosuppressant)  
IT **Prosthetic materials and Prosthetics**  
(polymers; coated implantable medical device providing controlled release of immunosuppressant)  
IT **Medical goods**  
(stents, coronary; coated implantable medical device providing controlled release of immunosuppressant)  
IT 7439-88-5, Iridium, biological studies 7440-06-4, Platinum, biological studies 7440-22-4, Silver, biological studies 7440-25-7, Tantalum, biological studies 7440-32-6, Titanium, biological studies 7440-33-7, Tungsten, biological studies 7440-44-0, Carbon, biological studies 7440-57-5, Gold, biological studies 9002-84-0, Polytetrafluoroethylene 9003-07-0, Polypropylene 9004-35-7, Cellulose acetate 9004-70-0, Cellulose nitrate 12597-68-1, Stainless steel, biological studies 12606-02-9, Inconel 24980-41-4, Polycaprolactone 25038-59-9, Polyethylene terephthalate, biological studies 25248-42-4, Polycaprolactone 25722-33-2, Parylene 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-

ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5,  
 Polyglycolic acid 52013-44-2, Nitinol 133644-68-5  
 (coated implantable medical device providing controlled release  
 of immunosuppressant)

L69 ANSWER 3 OF 15 HCA COPYRIGHT 2004 ACS on STN

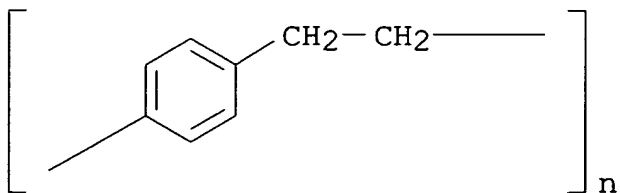
138:160831 Conformal conductor coatings comprising carbon nanotubes for  
 electromagnetic interference shielding. Glatkowski, Paul J.;  
 Landrau, Nelson; Landis, David H., Jr.; Piche, Joseph W.; Conroy,  
 Jeffrey (Eikos, Inc., USA). PCT Int. Appl. WO 2003013199 A2  
 20030213, 36 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ,  
 BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ,  
 EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
 KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
 MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,  
 TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
 TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI,  
 FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG,  
 TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US23413  
 20020724. PRIORITY: US 2001-PV307885 20010727.

AB The invention is directed to conformal coatings that provide  
 excellent shielding against electromagnetic interference (EMI). A  
 conformal coating comprises an insulating layer and a conducting  
 layer contg. elec. conductive material. The insulating layer  
 comprises materials for protecting a coated object. The conducting  
 layer comprises materials that provide EMI shielding such as C  
 black, C buckyballs, C nanotubes, chem.-modified C nanotubes and  
 combinations thereof. The insulating layer and the conductive layer  
 may be the same or different, and may be applied to an object  
 simultaneously or sequentially. Accordingly, the invention is also  
 directed to objects that are partially or completely coated with a  
 conformal coating that provides EMI shielding.

IT 25722-33-2, Parylene  
 (conformal conductor coatings comprising carbon nanotubes and  
 polymers for electromagnetic interference shielding)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM H05K

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related

Properties)

Section cross-reference(s): 38, 76

IT **Medical goods**

(catheters; conformal conductor coatings comprising carbon nanotubes and polymers for electromagnetic interference shielding)

IT **Prosthetic materials and Prosthetics**

(implants, artificial heart pacemaker; conformal conductor coatings comprising carbon nanotubes and polymers for electromagnetic interference shielding)

IT 1398-61-4, Chitin 7440-02-0, Nickel, uses 7440-22-4, Silver, uses 7440-50-8, Copper, uses 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9004-34-6, Cellulose, uses 13840-40-9, Phosphine oxide 25038-59-9, Polyethylene terephthalate, uses 25722-33-2, Parylene 33294-14-3, FR4 35141-30-1D, DETA, polymers 494853-12-2, HumiSeal 1A37HV 494853-23-5, HumiSeal 1B73 494853-24-6, HumiSeal 1A20  
(conformal conductor coatings comprising carbon nanotubes and polymers for electromagnetic interference shielding)

L69 ANSWER 4 OF 15 HCA COPYRIGHT 2004 ACS on STN

138:16670 Microfabricated surgical device with polymeric coatings. Seward, Kirk Partick; Pisano, Albert P.; Stupar, Philip Anthony (USA). U.S. Pat. Appl. Publ. US 2002188310 A1 20021212, 14 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-877653 20010608.

AB This invention relates to microfabricated surgical device comprising (i) an end portion including a metallic outer surface, and (ii) a body portion made of a conformally coated polymer. The polymer, selected from Parylene N, Parylene C, Parylene D, polystyrene, and Teflon, is deposited by gas vapor deposition on a substrate selected from silicon, metal, glass or a polymer. The metallic outer surface is made of Al, Au, Ni, Va, Zr, Pd, Pt, or Ti, and their alloys.

IT 9052-19-1, Parylene C 25722-33-2, Parylene N  
(microfabrication of surgical devices, such as microneedles, with polymeric coatings)

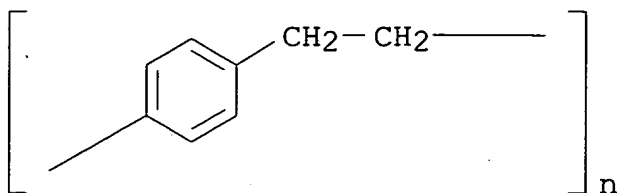
RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



- IC ICM A61B017-34  
ICS B29C033-40; B29C033-76
- NCL 606185000; 604272000; 264081000; 264219000; 264221000; 264317000
- CC 63-7 (Pharmaceuticals)
- IT **Prosthetic materials and Prosthetics**  
(alloys; microfabrication of surgical devices, such as microneedles, with polymeric coatings)
- IT **Medical goods**  
Needles (tools)  
(micro-; microfabrication of surgical devices, such as microneedles, with polymeric coatings)
- IT 7429-90-5, Aluminum, biological studies 7440-02-0, Nickel, biological studies 7440-05-3, Palladium, biological studies 7440-06-4, Platinum, biological studies 7440-32-6, Titanium, biological studies 7440-33-7, Tungsten, biological studies 7440-57-5, Gold, biological studies 7440-67-7, Zirconium, biological studies 9002-84-0, Teflon 9003-53-6, Polystyrene 9052-19-1, Parylene C 25722-33-2, Parylene N 52261-45-7, Parylene D  
(microfabrication of surgical devices, such as microneedles, with polymeric coatings)
- L69 ANSWER 5 OF 15 HCA COPYRIGHT 2004 ACS on STN
- 138:16669 Polymeric coatings for release of bioactive agents. Chudzik, Stephen J.; Kloke, Timothy M.; Lawin, Laurie R.; Ofstead, Ronald F.; Chappa, Ralph A.; Hergenrother, Robert W.; Anderson, Aron B.; Tran, Linh V. (USA). U.S. Pat. Appl. Publ. US 2002188037 A1 20021212, 15 pp., Cont.-in-part of U.S. Pat. Appl. 2002 32,434. (English). CODEN: USXXCO. APPLICATION: US 2002-175212 20020618. PRIORITY: US 1999-292510 19990415; US 2000-693771 20001020; US 2001-989033 20011121.
- AB A coating compn. and method of applying such a compn. under conditions of controlled humidity for use in coating device surfaces to control and/or improve their ability to release bioactive agents in aq. systems are described. The coating compn. is particularly adapted for use with medical devices that undergo significant flexion and/or expansion in the course of their delivery and/or use, such as stents and catheters. The compn. includes the bioactive agent in combination with a first polymer component such as

polyalyl(meth)acrylate, polyaryl(meth)acrylate, polyaralkyl(meth)acrylate, or polyaryloxyalkyl(meth)acrylate and a second polymer component such as poly(ethylene-co-vinyl acetate). For example, approx. 80% or more of the vincristine sulfate was released within one day from coatings contg. either poly(Bu methacrylate) or a blend of poly(Me methacrylate-co-Bu methacrylate) and poly(ethylene-co-vinyl acetate). The blend contg. poly(benzyl methacrylate) and poly(ethylene-co-vinyl acetate) showed sustained controlled release of vincristine sulfate for more than a one-month period. Also, the coating of the stents under different humidity level conditions can be used to control  $\beta$ -estradiol rate of release from coatings contg. poly(ethylene-co-vinyl acetate) and poly(Bu methacrylate).

IT 9052-19-1, Parylene C  
(pretreatment with; medical and **prosthetic** polymer coatings for release of bioactive agents)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM A01N001-00

NCL 523112000

CC 63-7 (Pharmaceuticals)

ST polyacrylate polymethacrylate EVA **prosthetic** coating  
controlled drug release

IT **Medical goods**  
(blood bags; medical and **prosthetic** polymer coatings for release of bioactive agents)

IT **Medical goods**  
(catheters; medical and **prosthetic** polymer coatings for release of bioactive agents)

IT Drug delivery systems  
(controlled-release; medical and **prosthetic** polymer coatings for release of bioactive agents)

IT Animal tissue culture  
(devices; medical and **prosthetic** polymer coatings for release of bioactive agents)

IT Circulation  
(extracorporeal, oxygenators; medical and **prosthetic** polymer coatings for release of bioactive agents)

IT Dialysis  
(hemodialysis; medical and **prosthetic** polymer coatings for release of bioactive agents)

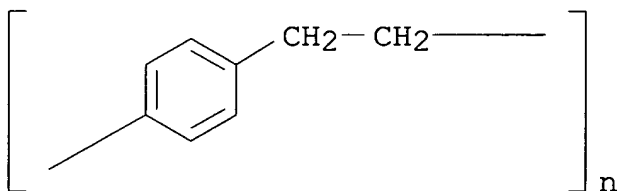
IT Dental materials and appliances  
**Prosthetic materials and Prosthetics**  
(implants; medical and **prosthetic** polymer coatings for release of bioactive agents)

IT Biosensors  
**Medical goods**

- Membrane, biological  
(medical and **prosthetic** polymer coatings for release of bioactive agents)
- IT Polymer blends  
(medical and **prosthetic** polymer coatings for release of bioactive agents)
- IT **Medical goods**  
(stents; medical and **prosthetic** polymer coatings for release of bioactive agents)
- IT **Medical goods**  
(sutures; medical and **prosthetic** polymer coatings for release of bioactive agents)
- IT 79-10-7D, Acrylic acid, esters, copolymers 79-41-4D, Methacrylic acid, esters, copolymers 9003-63-8, Poly(n-butyl methacrylate) 24937-78-8, Poly(ethylene-co-vinyl acetate) 25085-83-0, Poly(benzyl methacrylate) 25608-33-7, n-Butyl methacrylatemethyl methacrylate copolymer  
(medical and **prosthetic** polymer coatings for release of bioactive agents)
- IT 50-28-2,  $\beta$ -Estradiol, biological studies 70-30-4, Hexachlorophene 2068-78-2, Vincristine sulfate 12597-68-1, Stainless steel, biological studies  
(medical and **prosthetic** polymer coatings for release of bioactive agents)
- IT 9004-54-0D, Dextran, conjugates with TRITC 11109-50-5 107347-53-5D, TRITC, conjugates with dextran  
(medical and **prosthetic** polymer coatings for release of bioactive agents)
- IT **9052-19-1**, Parylene C  
(pretreatment with; medical and **prosthetic** polymer coatings for release of bioactive agents)
- L69 ANSWER 6 OF 15 HCA COPYRIGHT 2004 ACS on STN
- 137:68163 Delivery of therapeutic agents. Sirhan, Motasim; Yan, John (Avantec Vascular Corporation, USA). U.S. Pat. Appl. Publ. US 2002082679 A1 20020627, 49 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-2595 20011101. PRIORITY: US 2000-PV258024 20001222; US 2001-783253 20010213; US 2001-782927 20010213; US 2001-783254 20010213; US 2001-782804 20010213; US 2001-PV308381 20010726.
- AB A device and a method using the device for reducing restenosis and hyperplasia after intravascular intervention are disclosed. The present invention also provides luminal **prostheses** which allow for controlled release of at least one therapeutic agent with increased efficacy to selected locations within a patient vasculature to reduce restenosis. An intraluminal **prosthesis** may comprise an expandable structure and a source adjacent the expandable structure for releasing the therapeutic

capable agent into the body lumen to reduce smooth muscle cell proliferation. A therapeutic agent, mycophenolic acid, was prepd. by dissolving it in acetone at 15 mg/mL. The amt. of the drug agent varied in the range 0.1 µg-2 mg, preferably, at 600 µg. The drug soln. was then coated onto or over a stent by spraying them with an atomizer sprayer, while the stent was rotated. The stent was allowed to let dry. The stent was then placed over the tri-fold balloon on a catheter and crimped thereon. After crimping, the drug remained intact and attached to the stent. Expansion of the stent against a simulated Tecoflex vessel showed no cracking of the drug.

IT 25722-33-2, Parylene  
(delivery of therapeutic agents)  
RN 25722-33-2 HCA  
CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61F002-06  
ICS A61F002-00  
NCL 623001150  
CC 63-6 (Pharmaceuticals)  
IT **Medical goods**  
(catheters; delivery of therapeutic agents)  
IT Drug delivery systems  
**Prosthetic materials and Prosthetics**  
(implants; delivery of therapeutic agents)  
IT **Medical goods**  
(stents; delivery of therapeutic agents)  
IT 50-02-2, Dexamethasone 50-18-0, Cyclophosphamide 50-35-1,  
Thalidomide 50-78-2, Acetylsalicylic acid 53-03-2, Prednisone  
58-32-2, Dipyridamole 59-05-2, Methotrexate 83-43-2,  
Methylprednisolone 83-88-5, Riboflavin, biological studies  
88-12-0, N-Vinyl-2-pyrrolidone, biological studies 107-73-3,  
Phosphorylcholine 108-31-6, Maleic anhydride, biological studies  
127-07-1, Hydroxyurea 446-86-6, Azathioprine 1402-38-6,  
Actinomycin 1972-08-3, Dronabinol 7689-03-4, Camptothecin  
9002-84-0 9002-86-2, Polyvinyl chloride 9002-98-6 9003-05-8,  
Polyacrylamide 9003-63-8, Poly(n-butyl methacrylate) 9004-34-6,  
Cellulose, biological studies 9004-36-8, Cellulose acetate  
butyrate 9005-49-6, Heparin, biological studies 9007-27-6,  
Chondroitin 9011-14-7, Poly(methyl methacrylate) 9016-00-6,  
Poly(dimethyl siloxane) 19545-26-7, Wortmannin 24280-93-1,

Mycophenolic acid 24937-78-8, Ethylene-vinyl acetate copolymer 24980-41-4, Polycaprolactone 25067-34-9, Ethylene-vinyl alcohol copolymer 25189-52-0 25248-42-4, Polycaprolactone 25249-16-5, Poly(2-hydroxyethyl methacrylate) 25322-68-3, Polyethylene glycol **25722-33-2**, Parylene 25736-86-1, Polyethylene glycol methacrylate 26009-03-0, Poly(glycolic acid) 26023-30-3, Poly(lactic acid) 26063-00-3, Poly(hydroxybutyrate) 26100-51-6, Poly(lactic acid) 26124-68-5, Poly(glycolic acid) 26744-04-7 29223-92-5 31621-87-1, Polydioxanone 31900-57-9, Poly(dimethyl siloxane) 33069-62-4, Taxol 35284-36-7 38748-32-2, Triptolide 50924-49-7, Mizoribine 53123-88-9, Rapamycin 55142-85-3, Ticlopidine 59865-13-3, Cyclosporine 60084-10-8, Tiazofurin 66844-36-8, Caprolactone-L-lactic acid copolymer 67291-18-3, Poly(3-hydroxyvaleric acid), SRU 73963-72-1, Pletal 80137-67-3, Caprolactone-lactic acid copolymer 83120-66-5, Poly(3-hydroxyvaleric acid) 89149-10-0, Deoxyspergualin 95058-81-4, Gemcitabine 99614-02-5, Zofran 104987-11-3, Tacrolimus 104987-12-4, Ascomycin 105979-17-7, Benidipine 107007-99-8, Granisetron hydrochloride 113665-84-2, Clopidogrel 120202-66-6, Plavix 123948-87-8, Topotecan 128794-94-5, Mycophenolate mofetil 143653-53-6, Rheopro 152923-56-3, Daclizumab 154447-36-6, LY 294002 159351-69-6, Certican 162359-56-0, FTY 720 188627-80-7, Eptifibatide 439112-98-8, Parylast  
(delivery of therapeutic agents)

L69 ANSWER 7 OF 15 HCA COPYRIGHT 2004 ACS on STN

134:316035 Bending, torsional and extending active catheter assembled using electroplating. Haga, Yoichi; Esashi, Masayoshi; Maeda, Shigeo (Faculty of Engineering, Tohoku University, Japan). Annual International Conference on Micro Electro Mechanical Systems, Proceedings, 13th, Miyazaki, Japan, Jan. 23-27, 2000, 181-186. Institute of Electrical and Electronics Engineers: New York, N. Y. (English) 2000. CODEN: 69AKJ8.

AB This paper reports a new batch fabrication method of active catheters which have bending, torsional and extending functions for medical applications. The active catheter consists of shape memory alloy (SMA) coil for actuator and a stainless steel liner coil. The SMA coil and the liner coil are connected using nickel electroplating and acrylic resin electrodeposition. This novel method makes low cost assembly and small diam. ( $\phi 1.4$  mm) possible. New fabrication method of small diam. and thin wall tubular structure which is suitable for active catheters was developed. The tubular structure consists of stainless steel spring coil, evapd. parylene membrane and dip coated biocompatible polyurethane.

IT **9052-19-1**, Parylene C  
(membrane; bending, torsional and extending active catheter



assembled using electroplating)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 63-7 (Pharmaceuticals)

IT **Prosthetic materials and Prosthetics**

(alloys, shape memory alloys; bending, torsional and extending active catheter assembled using electroplating)

IT **Medical goods**

(catheters; bending, torsional and extending active catheter assembled using electroplating)

IT 9052-19-1, Parylene C

(membrane; bending, torsional and extending active catheter assembled using electroplating)

L69 ANSWER 8 OF 15 HCA COPYRIGHT 2004 ACS on STN

133:313568 Polychloro-p-xylylene implant artery of dogs - preliminary study on blood compatibility. Chen, Xi; Wu, Nianzeng; Shao, Liwei (Jiangsu Research Institute of Chemical Industry, Nanjing, 210024, Peop. Rep. China). Zhongguo Shengwu Yixue Gongcheng Xuebao, 19(2), 206-212 (Chinese) 2000. CODEN: ZSYXEI. ISSN: 0258-8021. Publisher: Zhongguo Yixue Kexueyuan.

AB Polychloro-p-xylylene coated NiTi memory alloys intravascular stent implant in artery of dogs. Evaluate biocompatibility of polychloro-p-xylylene with blood anal., photocopy, photo-microscopy, SEM, TEM. These results indicated that polychloro-p-xylylene has excellent blood compatibility.

IT 9052-19-1, Polychloro-p-xylylene

(blood compatibility of polychloro-p-xylylene implant artery in dogs)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 63-7 (Pharmaceuticals)

IT **Prosthetic materials and Prosthetics**

(implants, vascular; blood compatibility of polychloro-p-xylylene implant artery in dogs)

IT **Medical goods**

(stents; blood compatibility of polychloro-p-xylylene implant artery in dogs)

IT 9052-19-1, Polychloro-p-xylylene 12035-60-8

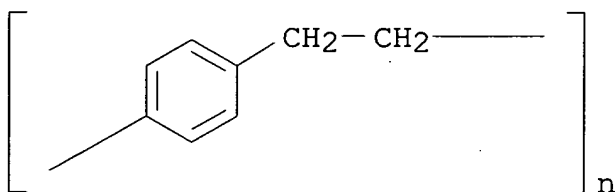
(blood compatibility of polychloro-p-xylylene implant artery in dogs)

L69 ANSWER 9 OF 15 HCA COPYRIGHT 2004 ACS on STN

132:227379 CVD-polymerization of a functionalized poly(p-xylylene). A generally applicable method for the immobilization of drugs on medical implants. Lahann, Jorg; Klee,

D.; Hocker, H. (Dep. Chemical Engineering, MIT, Cambridge, MA, 02139, USA). Materialwissenschaft und Werkstofftechnik, 30(12), 763-766 (German) 1999. CODEN: MATWER. ISSN: 0933-5137. Publisher: Wiley-VCH Verlag GmbH.

- AB The authors report a generally applicable polymer coating that allows 1-step coating and functionalization of implant materials as stainless steel, platinum, or Nitinol alloys. Coating is achieved by CVD-polymn. of a functionalized [2.2]-paracyclophane. Poly(amino-p-xylylene)-co-poly(p-xylylene) interfaces include free functional groups that were used for immobilization of the thrombin inhibitor r-hirudin. These bio-active surfaces might contribute to the development of stents with reduced restenosis.
- IT 25722-33-2, Poly(p-xylylene)  
(CVD-polymn. of a functionalized poly(p-xylylene))
- RN 25722-33-2 HCA
- CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



- CC 63-7 (Pharmaceuticals)
- ST CVD polymn aminoparacyclophane surface medical implant
- IT Coating materials  
Polymerization  
(CVD-polymn. of a functionalized poly(p-xylylene))
- IT Biopolymers  
(CVD-polymn. of a functionalized poly(p-xylylene))
- IT Vapor deposition process  
(chem.; CVD-polymn. of a functionalized poly(p-xylylene))
- IT Prosthetic materials and Prosthetics  
(implants; CVD-polymn. of a functionalized poly(p-xylylene))
- IT Polymer morphology  
(surface; CVD-polymn. of a functionalized poly(p-xylylene))
- IT 1633-22-3, [2.2]-Paracyclophane 25722-33-2,  
Poly(p-xylylene) 214261-08-2  
(CVD-polymn. of a functionalized poly(p-xylylene))
- IT 106-42-3, p-Xylene, biological studies 8001-27-2, Hirudin  
(CVD-polymn. of a functionalized poly(p-xylylene),  
method for the immobilization of drugs on medical implants)

L69 ANSWER 10 OF 15 HCA COPYRIGHT 2004 ACS on STN

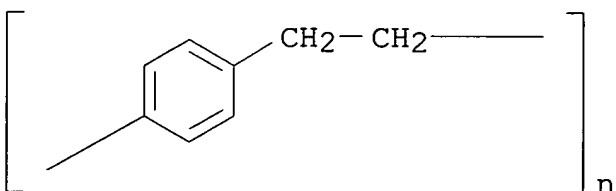
127:210416 Blood collection tube assembly. Knors, Christopher John (Becton Dickinson and Company, USA). Eur. Pat. Appl. EP 787823 A2 **19970806**, 22 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1997-101063 19970124. PRIORITY: US 1996-594078 19960130.

AB A plastic composite blood collection tube has a multilayer gas barrier coating on the inner and/or outer surface. The 1st layer is a primer coating, preferably a highly crosslinked acrylate polymer. The 2nd layer comprises a mixt. of an inorg. oxide and a metal oxide applied over the 1st layer. An optional 3rd layer of e.g. poly(vinylidene chloride) constitutes an org. barrier. Thus, a polypropylene tube was surface activated at 30 W, 38 MHz, and 200 millitorr for .apprx.30 s. Then a SnOx/SiOx film was deposited on the inside of the tube from a SnMe4-hexamethyldisiloxane plasma at 30 W, 38 MHz, and 250 millitorr for .apprx.5 min.

IT **25722-33-2D**, Parylene, polymers  
(thermosetting, coatings; blood collection tube assembly)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM C23C016-40

ICS A61J001-00; C08J007-04; B05D007-00; C23C016-04

CC 63-8 (Pharmaceuticals)

Section cross-reference(s): 9

IT **Medical goods**

(blood collection tubes; blood collection tube assembly)

IT **Vapor deposition process**

(chem.; blood collection tube assembly)

IT 75-35-4D, Vinylidene chloride, polymers **25722-33-2D**,  
Parylene, polymers

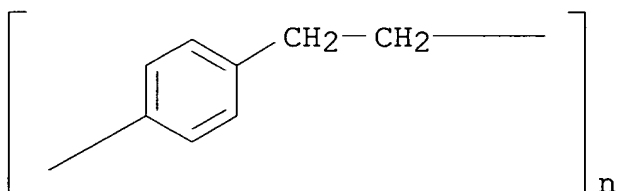
(thermosetting, coatings; blood collection tube assembly)

L69 ANSWER 11 OF 15 HCA COPYRIGHT 2004 ACS on STN

127:210415 Blood collection tube assembly. Tropsha, Yelena G.; Burkett, Susan L.; Knors, Christopher J.; Wong, Bryan Soo (Becton Dickinson and Company, USA). Eur. Pat. Appl. EP 787821 A2 **19970806**, 21 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1997-101064 19970124. PRIORITY: US 1996-593958 19960130.

AB A plastic blood collection tube has a multilayer gas barrier coating on the outer or inner surface. The 1st layer is a primer coating, preferably a highly crosslinked acrylate polymer, and is 0.1-10  $\mu\text{m}$  thick. The 2nd layer is a group IVA metal oxide or a mixt. of the oxide and the metal and is preferably 50-250 Å thick. The 3rd layer, disposed over the 2nd layer, consists of Si oxide or Al oxide and is 500-2500 Å thick. An optional 4th layer of e.g. vinylidene chloride polymer, thermosetting epoxy resin, Parylene polymer, or polyester constitutes an org. barrier. Thus, a 60:40 mixt. of isobornyl acrylate and epoxydiacrylate was flash vaporized at .apprx.343°, deposited onto polypropylene tubes, and UV cured at 365 nm. A SnOx film .apprx.150 Å thick was deposited on this layer from a SnMe4-O2 plasma at 30 W and 160-180 millitorr for 0.75 min. This was followed by plasma deposition of a SiOx film .apprx.1000 Å thick from a Me3SiH-O2 mixt. at 30 W and 90-160 millitorr for 4 min.

IT 25722-33-2D, Parylene, polymers  
(thermosetting, coatings; blood collection tube assembly)  
RN 25722-33-2 HCA  
CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



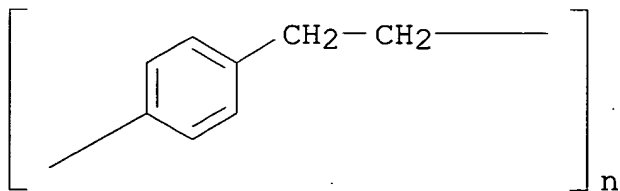
IC ICM C23C016-04  
ICS A61J001-00; C08J007-04; B65D023-08; B05D007-00  
CC 63-8 (Pharmaceuticals)  
Section cross-reference(s): 9  
IT **Medical goods**  
(blood collection tubes; blood collection tube assembly)  
IT **Vapor deposition process**  
(chem.; blood collection tube assembly)  
IT 25722-33-2D, Parylene, polymers  
(thermosetting, coatings; blood collection tube assembly)

L69 ANSWER 12 OF 15 HCA COPYRIGHT 2004 ACS on STN  
127:210414 Blood collection tube assembly. Harvey, Noel G.; Tropsha, Yelena G.; Burkett, Susan L.; Clarke, Richard P.; Wong, Bryan Soo (Becton Dickinson and Company, USA). Eur. Pat. Appl. EP 787827 A2 19970806, 15 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1997-101069 19970124. PRIORITY: US 1996-594069 19960130.

AB A plastic blood collection tube has a multilayer gas barrier coating

on the outer surface. The 1st layer is a primer coating prep'd. by polymn. of a heterocyclic comp'd. such as ethylene oxide. The 2nd layer is a sequence of multiple org. and inorg. coatings, where the dense, vapor-impervious inorg. coatings are based on Si or Al oxides and the org. coatings are highly crosslinked acrylate polymers. An optional 3rd layer of e.g. poly(vinylidene chloride) constitutes an org. barrier. Thus, a polyamine-polyepoxide coating was applied to plastic tubes by reacting 7 mol tetraethylenepentamine with 6 mol Epon 828 polyepoxide in 1-methoxy-2-propanol, adding N,N,N',N'-tetrakis(oxiranylmethyl)-1,3-benzenedimethanamine, dip-coating the tubes with the mixt., baking the tubes at 68° for 15-20 min, and aging for several days at ambient temp. A Si oxide film was then deposited on the 1st layer from a Me<sub>3</sub>SiH/O<sub>2</sub> gas mixt. by glow discharge, and the processes of coating with acrylate and oxide film deposition were repeated. The tube was then dip-coated with a water-based emulsion of vinylidene chloride copolymer and cured at 65° for .apprx.10 min; the av. coating thickness was .apprx.6 μm.

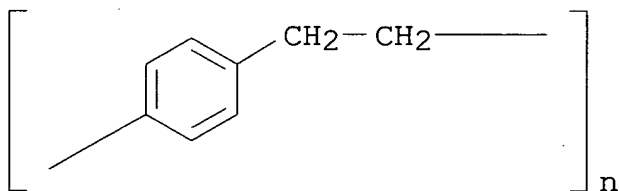
IT 25722-33-2D, Parylene, polymers  
 (thermosetting, coatings; blood collection tube assembly)  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM C23C016-40  
 ICS A61J001-00; C08J007-04; B05D007-00; B65D023-08  
 CC 63-8 (Pharmaceuticals)  
 Section cross-reference(s): 9  
 IT **Medical goods**  
 (blood collection tubes; blood collection tube assembly)  
 IT **Vapor deposition process**  
 (chem.; blood collection tube assembly)  
 IT 25722-33-2D, Parylene, polymers 54140-75-9  
 (thermosetting, coatings; blood collection tube assembly)

L69 ANSWER 13 OF 15 HCA COPYRIGHT 2004 ACS on STN  
 127:210413 Blood collection tube assembly. Tropsha, Yelena G. (Becton Dickinson and Company, USA). Eur. Pat. Appl. EP 787826 A1  
 19970806, 21 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT.  
 (English). CODEN: EPXXDW. APPLICATION: EP 1997-101068 19970124.  
 PRIORITY: US 1996-593976 19960130.

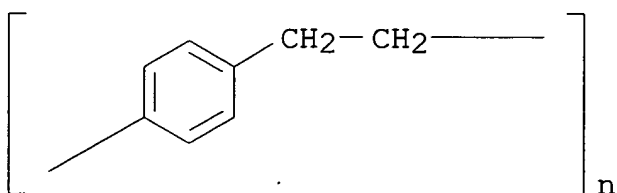
- AB A plastic blood collection tube has a multilayer gas barrier coating on the outer surface. The 1st layer is a primer coating, preferably a highly crosslinked acrylate polymer. The 2nd layer is a sequence of multiple org. and inorg. coatings, where the dense, vapor-imperious inorg. coatings are based on Si or Al oxides and the org. coatings are highly crosslinked acrylate polymers. An optional 3rd layer of e.g. poly(vinylidene chloride) constitutes an org. barrier. Thus, tripropylene glycol diacrylate was flash vaporized at .apprx.343°, deposited onto polypropylene tubes, and cured with an electron beam. A Si oxide film was then deposited on the 1st layer from a Me<sub>3</sub>SiH/O<sub>2</sub> gas mixt. by glow discharge, and the processes of coating with acrylate and oxide film deposition were repeated. The tube was then dip-coated with a water-based emulsion of vinylidene chloride copolymer and cured at 65° for .apprx.10 min; the av. coating thickness was .apprx.6 μm.
- IT **25722-33-2D**, Parylene, polymers  
(thermosetting, coatings; blood collection tube assembly)
- RN 25722-33-2 HCA
- CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



- IC ICM C23C016-40  
ICS A61J001-00; C08J007-04; B65D023-08; B05D007-00
- CC 63-8 (Pharmaceuticals)  
Section cross-reference(s): 9
- IT **Medical goods**  
(blood collection tubes; blood collection tube assembly)
- IT **Vapor deposition process**  
(chem.; blood collection tube assembly)
- IT **25722-33-2D**, Parylene, polymers 54140-75-9  
(thermosetting, coatings; blood collection tube assembly)
- L69 ANSWER 14 OF 15 HCA COPYRIGHT 2004 ACS on STN
- 127:210412 Blood collection tube assembly. Tropsha, Yelena G. (Becton Dickinson and Company, USA). Eur. Pat. Appl. EP 787825 A1  
**19970806**, 20 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT.  
(English). CODEN: EPXXDW. APPLICATION: EP 1997-101066 19970124.  
PRIORITY: US 1996-594068 19960130.
- AB A plastic blood collection tube has a multilayer gas barrier coating on the inner and/or outer surface. The 1st layer is a primer coating, preferably a highly crosslinked acrylate polymer. The 2nd

layer is a sequence of multiple org. and inorg. coatings, where the dense, vapor-impervious inorg. coatings are based on Si or Al oxides and the org. coatings are highly crosslinked acrylate polymers. An optional 3rd layer of e.g. poly(vinylidene chloride) constitutes an org. barrier. Thus, a 60:40 mixt. of isobornyl acrylate and epoxydiacrylate was flash vaporized at .apprx.343°, deposited onto polypropylene tubes, and cured with an electron beam. A Si oxide film was deposited on the 1st layer from a Me<sub>3</sub>SiH/O<sub>2</sub> gas mixt. by glow discharge. The tube was then dip-coated with a water-based emulsion of vinylidene chloride copolymer and cured at 65° for .apprx.10 min; the av. coating thickness was .apprx.6 µm.

IT 25722-33-2D, Parylene, polymers  
 (thermosetting, coatings; blood collection tube assembly)  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM C23C016-40  
 ICS A61J001-00; C08J007-04; B65D023-08; B05D007-00  
 CC 63-8 (Pharmaceuticals)  
 Section cross-reference(s): 9  
 IT **Medical goods**  
 (blood collection tubes; blood collection tube assembly)  
 IT **Vapor deposition process**  
 (chem.; blood collection tube assembly)  
 IT 75-35-4D, Vinylidene chloride, polymers 25722-33-2D,  
 Parylene, polymers  
 (thermosetting, coatings; blood collection tube assembly)

L69 ANSWER 15 OF 15 HCA COPYRIGHT 2004 ACS on STN

127:210411 Nonideal gas barrier coating sequence composition for blood collection tubes. Harvey, Noel G.; Tropsha, Yelena G. (Becton Dickinson and Company, USA). Eur. Pat. Appl. EP 787824 A2 19970806, 31 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1997-101065 19970124. PRIORITY: US 1996-593978 19960130.

AB A plastic blood collection tube has a multilayer gas barrier coating on the outer surface comprising a sequence of org. and inorg. materials, where the barrier performance of the coating as a whole is greater than that of each individual layer. The org. material is preferably a highly crosslinked acrylate or acrylic polymer. The

dense, vapor-impervious inorg. coating is based on Si oxide or Al oxide. An optional outer layer of e.g. a vinylidene chloride polymer constitutes an org. barrier. Thus, tripropylene glycol diacrylate was flash vaporized at .apprx.343°, deposited onto a plastic substrate, and cured with an electron beam. A Si oxide film was then deposited on the polyacrylate layer from a Me<sub>3</sub>SiH/O<sub>2</sub> plasma at 30 W and 90-100 millitorr, and the processes of coating with acrylate and oxide film deposition were repeated 1-20 times.

IT 9052-19-1, Parylene C  
(coating; nonideal gas barrier coating sequence compn. for blood collection tubes)

RN 9052-19-1 HCA

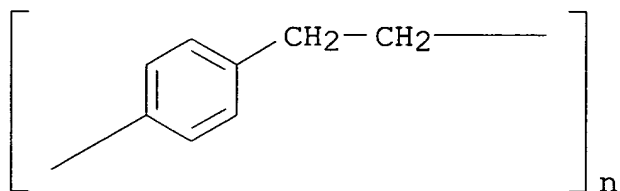
CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 25722-33-2D, Parylene, polymers  
(thermosetting, coatings; blood collection tube assembly)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM C23C016-40

ICS A61J001-00; C08J007-04; B65D023-08; B05D007-00

CC 63-8 (Pharmaceuticals)

Section cross-reference(s): 9

IT **Medical goods**  
(blood collection tubes; blood collection tube assembly)

IT **Vapor deposition process**  
(chem.; blood collection tube assembly)

IT 9052-19-1, Parylene C 25038-59-9, biological studies

52261-45-7, Parylene D  
(coating; nonideal gas barrier coating sequence compn. for blood collection tubes)

IT 25722-33-2D, Parylene, polymers  
(thermosetting, coatings; blood collection tube assembly)

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L70 ANSWER 1 OF 27 HCA COPYRIGHT 2004 ACS on STN

139:102453 Grafting reagent and method for providing coatings on surfaces. Chappa, Ralph A.; Stucke, Sean M.; Amos, Richard A.;



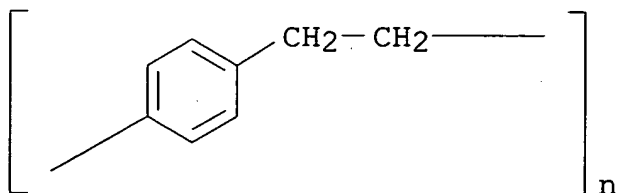
Everson, Terrence P.; Chudzic, Stephen J.; Swan, Dale G.; Duquette, Peter H. (Surmodics, Inc., USA). PCT Int. Appl. WO 2003055611 A1 20030710, 59 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US41143 20021220. PRIORITY: US 2001-28518 20011221.

AB The method includes the steps of (a) providing a porous support surface, (b) providing a nonpolymeric grafting reagent comprising a photoinitiator group, (c) providing one or more polymerizable monomers adapted to be contacted with the surface, in the presence of the grafting reagent, and to be polymd. upon activation of the photoinitiator; and (d) applying the grafting reagent and monomer(s) to the surface in a manner, and under conditions, suitable to coat the surface with the grafting reagent and to cause the polymn. of monomers to the surface upon activation of the grafting reagent. The reagent and method can be used to provide a thin, conformable, uniform, uncrosslinked coating having desired properties onto the surface of a performed, and particularly a porous, polymeric substrate. The polymeric coating provides an improved combination of properties selected from permeability, antithrombogenicity, lubricity, hemocompatibility, wettability/hydrophilicity, durability of attachment to the surface, biocompatibility, and reduced bacterial adhesion, as compared to a comparable polymeric coating formed by the attachment of preformed polymers. A polyurethane was surface modified by polymn. of acrylamide and acrylamidomethylpropane sulfonic acid in the presence of tetrakis (4-benzoylbenzyl ether) of pentaerythritol.

IT 25722-33-2, Parylene  
(substrate; grafting reagent and method for providing coatings on surfaces)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM B05D001-36

ICS B05D003-06; B05D001-00; C07C309-42; A61L029-00; A61L031-00;  
C08F002-26

CC 42-2 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 63

IT **Coating materials**  
**Coating process**  
**Medical goods**  
(grafting reagent and method for providing coatings on surfaces)

IT 9002-86-2, Poly(vinyl) chloride 9002-89-5 9003-07-0 9003-20-7,  
Poly(vinylacetate) 9003-53-6, Polystyrene 24937-79-9,  
Polyvinylidene difluoride 24938-64-5, Poly-(p-  
phenyleneterephthalamide) 25014-41-9, Polyacrylonitrile  
25038-59-9, Polyethylene terephthalate, miscellaneous  
**25722-33-2**, Parylene 26009-03-0, Polyglycolic acid  
26124-68-5, Polyglycolic acid  
(substrate; grafting reagent and method for providing coatings on  
surfaces)

L70 ANSWER 2 OF 27 HCA COPYRIGHT 2004 ACS on STN

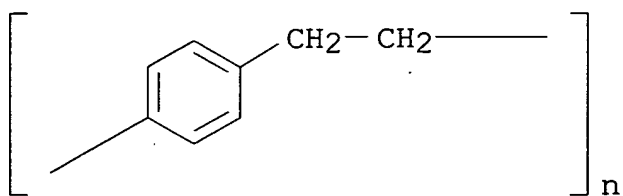
139:58005 **Prosthetic** liner with polymer skin. Hellberg,  
Kennet (Centri AB, Swed.). PCT Int. Appl. WO 2003051241 A1  
20030626, 10 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK,  
DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU,  
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,  
MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD,  
SE, SG, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,  
YU, ZA, ZM, ZW, AM, AZ, BY, KG; RW: AT, BE, BF, BJ, CF, CG, CH, CI,  
CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE,  
NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.  
APPLICATION: WO 2002-SE2434 20021219. PRIORITY: SE 2001-4301  
20011219.

AB The invention suggests the application of a friction reducing  
polymer skin to a soft and elastic **prosthetic** liner  
through polymn. of a cyclic monomer in a vaporization process. The  
invention also suggests a method for producing a soft and elastic  
**prosthetic** liner with a friction reducing polymer film, and  
the use of a polymer film for reducing surface friction on a soft  
and elastic **prosthetic** liner. The polymer film preferred  
is a poly-p-xylylene film.

IT **25722-33-2P**, Poly-p-xylylene  
(**prosthetic** liner with polymer skin)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



- IC ICM A61F002-50  
ICS A61L027-34; C08G061-02
- CC 63-7 (Pharmaceuticals)  
Section cross-reference(s): 38
- ST **prosthetic** liner polymer skin
- IT Styrene-butadiene rubber, biological studies  
(block, triblock; **prosthetic** liner with polymer skin)
- IT Styrene-butadiene rubber, biological studies  
(hydrogenated, block, triblock; **prosthetic** liner with polymer skin)
- IT **Prosthetic** materials and **Prosthetics**  
(**prosthetic** liner with polymer skin)
- IT Polysiloxanes, biological studies  
Thermoplastic rubber  
(**prosthetic** liner with polymer skin)
- IT Polymerization  
(vapor-deposition; **prosthetic** liner with polymer skin)
- IT 25722-33-2P, Poly-p-xylylene  
(**prosthetic** liner with polymer skin)
- IT 9002-86-2, Pvc  
(**prosthetic** liner with polymer skin)
- IT 106107-54-4 694491-73-1  
(styrene-butadiene rubber, block, triblock; **prosthetic** liner with polymer skin)

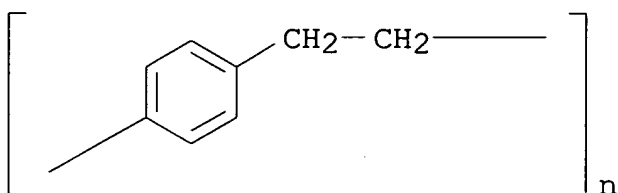
L70 ANSWER 3 OF 27 HCA COPYRIGHT 2004 ACS on STN

138:292838 **Stents** for treatment of coronary artery obstructions. Fischell, Robert E.; Fischell, David R.; Fischell, Tim A. (Cordis Corporation, USA). Eur. Pat. Appl. EP 1300166 A1 20030409, 10 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2002-256688 20020925. PRIORITY: US 2001-969165 20011002.

AB A **stent** for implantation into an artery of a human subject, the **stent** comprises a thin-walled, lace-like, metal structure formed into the general shape of a cylindrical tube. The **stent** has a drug coating on its surface, the drug being an anti-restenosis drug selected from the group that includes,

Alkeran, Cytosan, Leukeran, BiCNU, Cerubidine, Fluorouracil, Methotrexate, Toxotere, Irinotecan, Hycamptin, Matulane, Vumon, Hexalin, Gemzar, Oncovin, Etopophos.

IT 25722-33-2, Parylene  
(**stents** for treatment of coronary artery obstructions)  
RN 25722-33-2 HCA  
CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)

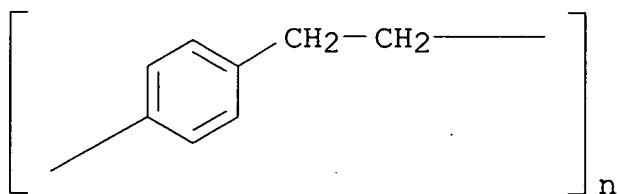


IC ICM A61L031-16  
ICS A61L031-10  
CC 63-7 (Pharmaceuticals)  
ST **stent** coronary artery obstruction  
IT Artery, disease  
(coronary, restenosis; **stents** for treatment of coronary artery obstructions)  
IT Artery  
(coronary; **stents** for treatment of coronary artery obstructions)  
IT Anticoagulants  
(**stents** for treatment of coronary artery obstructions)  
IT Fluoropolymers, biological studies  
Polyamides, biological studies  
Polyurethanes, biological studies  
Silicone rubber, biological studies  
(**stents** for treatment of coronary artery obstructions)  
IT Medical goods  
(**stents**; **stents** for treatment of coronary artery obstructions)  
IT 9002-84-0, Ptfе 9002-88-4, Polyethylene 25722-33-2, Parylene  
(**stents** for treatment of coronary artery obstructions)  
IT 50-18-0, Cytosan 51-21-8, 5-Fu 59-05-2, Methotrexate 148-82-3, Alkeran 154-93-8, Bcnu 305-03-3, Leukeran 366-70-1, Matulane 2068-78-2, Oncovin 23541-50-6, Cerubidine 29767-20-2, Vumon 33419-42-0, Etoposide 39394-34-8, Hexalin 97682-44-5, Irinotecan 114977-28-5, Taxotere 117091-64-2, Etopophos 122111-03-9, Gemzar 123948-87-8, Hycamptin  
(**stents** for treatment of coronary artery obstructions)

138:44788 High impedance electrode tip for heart pacemakers. Janke, Aaron W.; Cole, Mary Lee; Heil, Ronald W., Jr.; Bartig, Jeffrey T.; Goebel, Gary W.; Heitkamp, Douglas A.; Peterfeso, Randall M. (Cardiac Pacemakers, Inc., USA). U.S. US 6501994 B1 20021231, 16 pp., Cont.-in-part of U. S. Ser. No. 998,174, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1998-121288 19980722. PRIORITY: US 1997-998174 19971224.

AB An implantable lead, being either a fixed or retractable/extendable lead, having a distal tip electrode is adapted for implantation on or about the heart and for connection to a system for monitoring or stimulating cardiac activity. The electrode includes a mech. fastener such as a fixation helix for securing the electrode to cardiac tissue, which may or may not be elec. active. The implantable electrode with a helical tip includes an electrode which has a distal end and a proximal end. A helix is disposed within the electrode, where the helix is aligned along a radial axis of the electrode. The electrode further includes one or more of the following features: the helix having a coating of an insulating material on a surface of the helix, a porous conductive surface at a base of the helix, a porous conductive element at the end of the electrode having an insulating coating covering from 5-95% of the surface of the porous conductive element. The electrode may further include an electrode tip having a porous elec. conductive element, such as a mesh screen, disposed on a surface at the distal end of the electrode tip, which can be used as a sensing or pacing interface with the cardiac tissue.

IT 25722-33-2, Poly(p-xylylene)  
(high impedance electrode tip for heart pacemakers)  
RN 25722-33-2 HCA  
CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61N001-05  
NCL 607127000  
CC 63-7 (Pharmaceuticals)  
IT **Coating materials**  
Electric insulators  
Electrodes  
Heart  
(high impedance electrode tip for heart pacemakers)  
IT **Prosthetic materials and Prosthetics**

(implants, artificial heart pacemaker; high impedance electrode tip for heart pacemakers)

IT 25722-33-2, Poly(p-xylylene)  
(high impedance electrode tip for heart pacemakers)

L70 ANSWER 5 OF 27 HCA COPYRIGHT 2004 ACS on STN

137:284425 Polymer lubricant coating for medical devices. Tingey, Kevin; Johnson, Steven W.; Purdy, Robert E.; Orr, Douglas P.; Lee, Min-Shiu (Becton, Dickinson and Company, USA). PCT Int. Appl. WO 2002078748 A2 20021010, 15 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US2327 20020124. PRIORITY: US 2001-PV263882 20010124; US 2002-56417 20020124.

AB A lubrication system is disclosed which minimizes friction and that is useful for application on the surface of a flexible portion of a medical device. Such a lubrication system includes a lubricant that is able to move when the flexible portion of the medical device flexes and is biocompatible and is not degraded by the application of alc. or other conventional medical sterilizing and cleaning agents. The lubrication is bonded to the surface of the flexible portion of the medical device. The lubrication system may be used on an elastomeric septum, such as a silicone rubber elastomer. The lubricant coating may be any type of coating that can be chem. bonded to the elastomer, such as di-para-xylene, poly(p-xylene), polytetrafluoroethylene, or polyvinylpyrrolidone.

IT 9052-19-1, Parylene C 25722-33-2, Parylene N  
(polymer lubricant coating for medical devices)

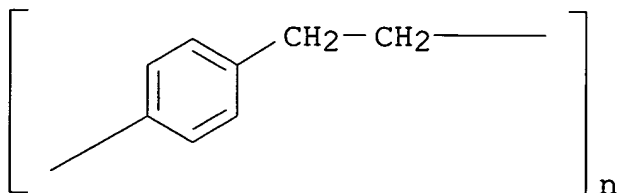
RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61L  
 CC 63-7 (Pharmaceuticals)  
 IT **Coating materials**  
 Lubricants

**Medical goods**

Membranes, nonbiological

(polymer lubricant coating for medical devices)

IT 538-39-6 9002-84-0, Polytetrafluoroethylene 9003-31-0,  
 Polyisoprene 9003-39-8, Polyvinylpyrrolidone **9052-19-1**,  
 Parylene C **25722-33-2**, Parylene N 25951-90-0,  
 Poly(p-xylylene) 52261-45-7, Parylene D  
 (polymer lubricant coating for medical devices)

L70 ANSWER 6 OF 27 HCA COPYRIGHT 2004 ACS on STN

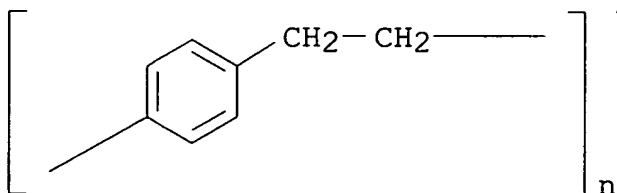
137:98895 Microscale three-dimensional polymeric platforms for in vitro cell culture systems. Snyder, Jennifer Deutsch; Desai, Tejal Ashwin (Department of Bioengineering, University of Illinois, Chicago, IL, 60607, USA). Journal of Biomaterials Science, Polymer Edition, 12(8), 921-932 (English) **2001**. CODEN: JBSEEA. ISSN: 0920-5063. Publisher: VSP BV.

AB This paper describes fabrication schemes to create multidimensional polymeric platforms to study cell function. A key feature of these constructs is the replication of in vivo geometry and dimensional size scales that will aid in the understanding of fundamental cell-environment interactions. Advantages of these microtextured membranes include the high degree of reproducibility, optical clarity, and the ability to create multiple features on the micron and sub-micron size scale. We have demonstrated the creation of controlled microscale features on hydrogels as well as biodegradable materials such as poly(lactic-glycolic acid). These microtopogs. selectively degrade under physiol. conditions. Because of the flexibility of substrate material and the ease of creating micron size structures, this technique can be applied to a multitude of physiol. and biol. systems.

IT **25722-33-2**, Parylene  
 (microscale three-dimensional polymeric platforms for cell culture systems)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



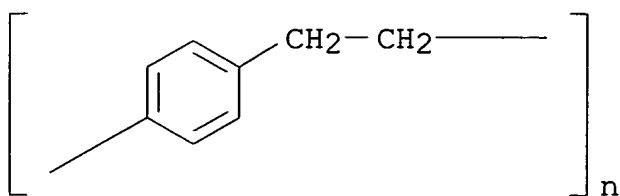
CC 63-7 (Pharmaceuticals)  
IT Animal tissue culture  
    **Coating materials**  
    **Coating process**  
    Fibroblast  
    Hydrogels  
    Membranes, nonbiological  
    Microstructure  
    Polymer degradation  
    **Prosthetic materials and Prosthetics**  
        (microscale three-dimensional polymeric platforms for cell culture systems)  
IT 25722-33-2, Parylene 26780-50-7, Poly(glycolide-co-lactide) 33410-59-2, Poly(HEMA)  
    (microscale three-dimensional polymeric platforms for cell culture systems)

L70 ANSWER 7 OF 27 HCA COPYRIGHT 2004 ACS on STN  
136:359672 End sleeve coating for **stent** delivery. Wang, Lixiao; Yang, Dachuan; Tran, The Thomas Trinh; Dicaprio, Fernando; Williams, Brett A. (Scimed Life Systems, Inc., USA). PCT Int. Appl. WO 2002034165 A1 20020502, 24 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US40890 20010607. PRIORITY: US 2000-697194 20001026.

AB A **stent** delivery system which utilizes a **stent** delivery catheter to deliver a **stent** into a body lumen. The **stent** delivery catheter is equipped with at least one **stent** retaining sleeve. The **stent**-retaining sleeve has an inside surface and an outside surface. The inside surface, the outside surface, or both, have a coating which is lubricious. The lubricious coating is selected from hydrogels, homopolymers and copolymers of polyalkylene oxides, homopolymers or copolymers of at least 1 polymerizable ethylenically unsatd. compd., and mixts. thereof.

IT 25722-33-2, Parylene  
    (end-sleeve coating for **stent** delivery)  
RN 25722-33-2 HCA  
CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)





- IC ICM A61F002-06  
ICS A61L029-08
- CC 63-7 (Pharmaceuticals)
- ST sleeve coating polymer **stent** delivery
- IT Polysiloxanes, biological studies  
(amino-terminated; end-sleeve coating for **stent** delivery)
- IT **Medical goods**  
(catheters; end-sleeve coating for **stent** delivery)
- IT Silicone rubber, biological studies  
(di-Me, amino-terminated, Silastic MDX 4-4159; end-sleeve coating for **stent** delivery)
- IT **Coating materials**  
Interpenetrating polymer networks  
Lubricants  
(end-sleeve coating for **stent** delivery)
- IT Acrylic polymers, biological studies  
Polymers, biological studies  
Polyolefins  
Polyoxyalkylenes, biological studies  
Polysiloxanes, biological studies  
(end-sleeve coating for **stent** delivery)
- IT **Medical goods**  
(**stents**; end-sleeve coating for **stent** delivery)
- IT 108-31-6D, Maleic anhydride, copolymers 9003-01-4, Poly(acrylic acid) 9003-16-1, Polyfumaric acid 9006-26-2, Poly(ethylene-maleic anhydride) copolymer 9011-16-9, Maleic anhydride-methyl vinyl ether copolymer 9016-00-6, Polydimethyl siloxane 25087-26-7, Poly(methacrylic acid) 25322-68-3, Polyethylene oxide 25722-33-2, Parylene 26099-09-2, Polymaleic acid  
(end-sleeve coating for **stent** delivery)
- L70 ANSWER 8 OF 27 HCA COPYRIGHT 2004 ACS on STN
- 136:205489 Dressings for wound healing containing alginate overlays and other hydrocolloid inserts. (Runge, Alexander, Germany). Ger. Gebrauchsmusterschrift DE 20118880 U1 20020228, 20 pp. (German). CODEN: GGXXFR. APPLICATION: DE 2001-20118880 20011121.

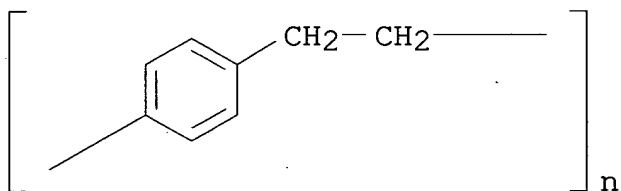
AB The invention concerns surgical dressings to protect wounds and promote their healing that are composed of a water insol. support mesh and water-sol. hydrocolloid inserts; the hydrocolloid inserts can be in form of hydrocolloid fibers that are interwoven with the support mesh; hydrocolloid particles are in the pores of the support mesh; and hydrocolloids are overlays that cover parts of the mesh and have high absorption capacity. The hydrocolloid for the overlay is an alginate; the hydrocolloid fibers and particles are made from alginic acid, carrageen, pectin, cellulose derivs. etc. The support mesh is prepd. from natural or synthetic fibers; it can be impregnated with hydrophobic substances, antiadhesives, antimicrobial agents, or covered with a metal. The dressings can be packaged as pads, rolls, also in multilayers.

IT 25722-33-2, Poly-p-xylylene

(dressings for wound healing contg. alginate overlays and other hydrocolloid inserts)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61L015-24

ICS A61K009-70; A61F013-538

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 38

IT **Medical goods**

(dressings; dressings for wound healing contg. alginate overlays and other hydrocolloid inserts)

IT **Coating materials**

(nonstick; dressings for wound healing contg. alginate overlays and other hydrocolloid inserts)

IT 88-99-3D, 1,2-Benzenedicarboxylic acid, Diallyl derivs. 9000-65-1, Tragant gum 9000-69-5, Pectin 9002-83-9, Polychlorotrifluoroethylene 9002-85-1, Polyvinylidenechloride 9002-86-2, Polyvinylchloride 9002-88-4, Polyethylene 9002-88-4D, Polyethylene, chlorinated 9002-89-5, Polyvinylalcohol 9003-07-0, Polypropylene 9003-08-1, Melamine-Formaldehyde copolymer 9003-20-7, Polyvinylacetate 9003-27-4, Polyisobutylene 9003-28-5, Poly-1-butene 9003-35-4, Phenol-Formaldehyde copolymer 9003-39-8, Polyvinylpyrrolidone 9003-53-6, Polystyrene 9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9, ABS polymer 9004-32-4, Carboxymethylcellulose 9004-34-6D, Cellulose, ethers

9004-35-7, Celluloseacetate 9004-36-8, Celluloseacetobutyrate  
 9004-54-0, Dextran, biological studies 9004-57-3, Ethylcellulose  
 9004-67-5, Methylcellulose 9004-70-0, Cellulosenitrate  
 9005-32-7, Alginic acid 9005-32-7D, Alginic acid, ester with  
 acetic acid, alginyl acetate 9005-35-0, Calcium alginate  
 9010-79-1, Ethylene-Propylene copolymer 9011-05-6,  
 Formaldehyde-urea copolymer 9011-14-7, Polymethylmethacrylate  
 9016-83-5, Formaldehyde-cresol copolymer 9019-40-3, Aluminum  
 alginate 24937-78-8, Ethylene-Vinylacetate copolymer 24937-79-9,  
 Polyvinylidene fluoride 25014-31-7, Benzene, (1-methylethenyl)-  
 homopolymer 25014-41-9, 2-Propenenitrile homopolymer 25038-59-9,  
 Polyethyleneterephthalate, biological studies 25053-09-2,  
 Butadiene-Methylmethacrylate-Styrene copolymer 25067-11-2,  
 Hexafluoropropylene-tetrafluoroethylene-copolymer 25067-34-9,  
 Ethylene-Vinylalcohol copolymer 25067-59-8, Polyvinylcarbazole  
 25068-26-2, Poly-4-methyl-1-pentene 25722-33-2,  
 Poly-p-xylylene 26062-94-2, Polybutyleneterephthalate  
 30396-85-1, Acrylonitrile-Methylmethacrylate copolymer 37251-44-8,  
 Magnesium alginate 37336-46-2, Duroplast 115965-99-6, Chromium  
 alginate 118689-42-2, Ethylalginate  
 (dressings for wound healing contg. alginate overlays and other  
 hydrocolloid inserts)

L70 ANSWER 9 OF 27 HCA COPYRIGHT 2004 ACS on STN

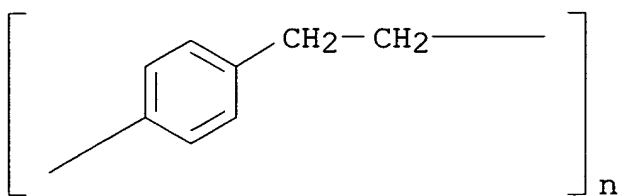
136:42939 End sleeve coating for **stent** delivery. Wang,  
 Lixiao; Tran, The Thomas Trinh; DiCaprio, Fernando; Williams, Brett  
 A. (Scimed Life Systems, Inc., USA). U.S. US 6331186 B1  
**20011218**, 9 pp., Cont.-in-part of U.S. Ser. No. 273,520.  
 (English). CODEN: USXXAM. APPLICATION: US 1999-427805 19991027.  
 PRIORITY: US 1999-273520 19990322.

AB A **stent** delivery system utilizes a **stent**  
 delivery catheter to deliver a **stent** into a body lumen.  
 The **stent** delivery catheter is equipped with at least one  
**stent** retaining sleeve. At least one **stent**  
 retaining sleeve has an inside diam. and an outside diam. The  
 inside diam. has a surface which is lubricious. The lubricious gel  
 comprises a blend of a noncrosslinkable polydimethylsiloxane and a  
 crosslinkable amino-terminated polydimethylsiloxane.

IT **25722-33-2**, Parylene  
 (lubricant; end sleeve coating for **stent** delivery)

RN **25722-33-2** HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61F002-02  
 ICS A61M025-10  
 NCL 623001110  
 CC 63-8 (Pharmaceuticals)  
 ST **stent** delivery sleeve coating  
 IT Artery  
 (angioplasty; end sleeve coating for **stent** delivery)  
 IT **Medical goods**  
 (catheters; end sleeve coating for **stent** delivery)  
 IT **Coating materials**  
 Lubricants  
 (end sleeve coating for **stent** delivery)  
 IT Acetals  
 Alcohols, biological studies  
 Amides, biological studies  
 Anhydrides  
 Hydrazides  
 Nitrates, biological studies  
 Polysiloxanes, biological studies  
 Quaternary ammonium compounds, biological studies  
 Salts, biological studies  
 (end sleeve coating for **stent** delivery)  
 IT Acetals  
 (formals; end sleeve coating for **stent** delivery)  
 IT Sulfonic acids, biological studies  
 (salts; end sleeve coating for **stent** delivery)  
 IT Drug delivery systems  
**Medical goods**  
 (**stents**; end sleeve coating for **stent** delivery)  
 IT 9016-00-6, Polydimethylsiloxane 31900-57-9, Polydimethylsiloxane  
 (end sleeve coating for **stent** delivery)  
 IT 12138-09-9, Tungsten disulfide 25722-33-2, Parylene  
 (lubricant; end sleeve coating for **stent** delivery)  
 L70 ANSWER 10 OF 27 HCA COPYRIGHT 2004 ACS on STN  
 135:376782 Drug combinations for prevention of restenosis. Kopia,  
 Gregory A.; Llanos, Gerald H.; Falotico, Robert F. (Cordis  
 Corporation, USA). PCT Int. Appl. WO 2001087372 A1 20011122

, 30 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English).  
CODEN: PIXXD2. APPLICATION: WO 2001-US13780 20010425. PRIORITY: US 2000-PV204417 20000512; US 2000-PV575480 20000519.

AB The current invention comprises an approach to solving the clin. problem of restenosis, which involves the administration of combinations of drugs to patients undergoing PTCA or **stent** implantation. In one embodiment of the invention, an antiproliferative agent such as rapamycin, vincristine or taxol is administered in combination with the antiinflammatory agent, dexamethasone, to patients systemically, either s.c. or i.v. In another embodiment of the invention, the antiproliferative and antiinflammatory agents are bound in a single formulation to the surface of a **stent** by means of incorporation within either a biodegradable or biostable polymeric coating. Alternatively, such drug combinations could be incorporated into a **stent** constructed with a grooved reservoir. **Stents** were coated with Parylene-C by using a **vapor deposition** method. The **stent** was weighed and then mounted for coating. While the **stent** was rotating a soln. of 1.75 mg/mL poly(ethylene-co-vinyl acetate) (PEVA), 1.75 mg/mL poly(Bu methacrylate), 0.75 mg/mL rapamycin and 0.75 mg/mL dexamethasone dissolved in THF was sprayed onto it. The coated **stent** was removed from the spray and allowed to air-dry. After a final weighing the amt. of coating on the **stent** was detd.

IT 9052-19-1, Parylene C

(drug combinations for prevention of restenosis)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM A61L031-16

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT **Medical goods**

(catheters; drug combinations for prevention of restenosis)

IT **Medical goods**

(**stents**; drug combinations for prevention of restenosis)

IT 50-02-2, Dexamethasone 57-22-7, Vincristine 9003-63-8, Poly(butyl methacrylate) 9052-19-1, Parylene C 24937-78-8, EVA 33069-62-4, Taxol 53123-88-9, Rapamycin 55837-20-2, Halofuginone 192185-68-5, R 115777

(drug combinations for prevention of restenosis)

L70 ANSWER 11 OF 27 HCA COPYRIGHT 2004 ACS on STN

131:356167 Parylene-coated devices containing adhesives. Cline, Mojgan; Snyder, Daniel B. (Schering-Plough Healthcare Products, Inc., USA). PCT Int. Appl. WO 9959646 A1 19991125, 27 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US7043 19990514. PRIORITY: US 1998-81179 19980519.

AB A device comprising an article coated with parylene wherein an adhesive is adhered to said parylene coating is claimed. The adhesive can be a pressure sensitive adhesive or a non-pressure sensitive adhesive. The device, which has improved stay-on-time, can be useful for applications to the body, such as sheet padding, a finger pad, a corn pad, a callus pad, a blister pad, a heel pad or a toe pad. Using compression molding, a mold cavity heated to a conventional **vapor deposition** system having serially, a vaporizer, a pyrolysis unit or furnace and a **vapor deposition** chamber was used to deposit a coating of Parylene C, Parylene N, or Parylene D onto an elastomeric article made of a polysiloxane. An untreated elastomeric article was placed in the **vapor deposition** chamber. In the vaporizer, a quantity of p-xylylene was evapd. at 150°. The p-xylylene vapors travel to the pyrolysis unit or furnace where they are then heated in the furnace at least 680° and 0.5 torr to pyrolyze the p-xylylene dimer and form the corresponding monomeric diradical, p-xylylene. The monomer diradical then enters the deposition chamber at ambient temps. and about 0.1 torr, where it condenses on the surface of the article to form a polymer or parylene coating which is continuous about all sides of the article. A parylene coated article prepd. as above was laminated with an acrylic pressure-sensitive adhesive by contacting the parylene-coated article with a release liner contg. Monsanto GMS 737, a solvent based-adhesive.

IT 9052-19-1, Parylene C 25722-33-2, Parylene  
(parylene-coated devices contg. adhesives)

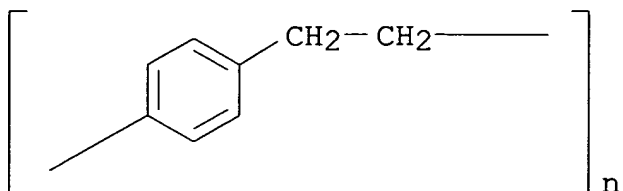
RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

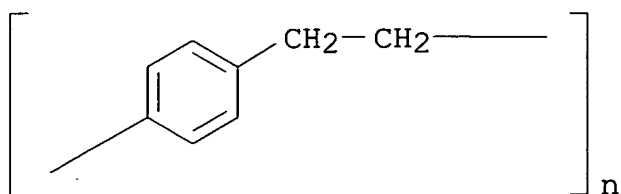
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)

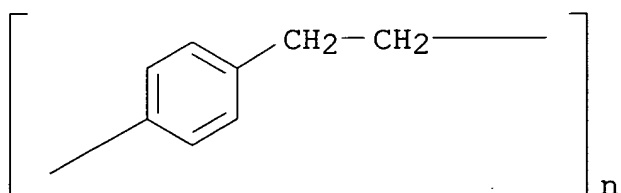


- IC ICM A61L015-12  
 CC 63-7 (Pharmaceuticals)  
 IT **Medical goods**  
     **Medical goods**  
     (adhesives; parylene-coated devices contg. adhesives)  
 IT **Medical goods**  
     (pads; parylene-coated devices contg. adhesives)  
 IT **Coating materials**  
     Shear strength  
     (parylene-coated devices contg. adhesives)  
 IT **9052-19-1, Parylene C 25722-33-2, Parylene**  
     **52261-45-7, Parylene D**  
     (parylene-coated devices contg. adhesives)
- L70 ANSWER 12 OF 27 HCA COPYRIGHT 2004 ACS on STN  
 130:343069 Conformally coated implantable medical device with high  
 definition window. Graves, Richard M.; Herber, Martin C. (Sulzer  
 Intermedics Inc., USA). PCT Int. Appl. WO 9924082 A2  
**19990520**, 15 pp. DESIGNATED STATES: W: CA, JP; RW: AT, BE,  
 CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE.  
 (English). CODEN: PIXXD2. APPLICATION: WO 1998-US23651 19981106.  
 PRIORITY: US 1997-966134 19971107.
- AB An implantable medical device is disclosed having an elec.  
 insulative coating material on a portion of the titanium housing. A  
 high definition window is prepd. in the coating by pulsed excimer  
 laser radiation ablating an org. coating, such as parylene or a  
 similar polymer, to micromachine a conductive window having sharply  
 defined boundaries or edges.
- IT **25722-33-2, Parylene**  
     (conformally coated implantable medical device with high  
     definition window)
- RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61L  
 CC 63-8 (Pharmaceuticals)  
 IT **Coating materials**  
     **Medical goods**  
     (conformally coated implantable medical device with high definition window)  
 IT **25722-33-2, Parylene**  
     (conformally coated implantable medical device with high definition window)

L70 ANSWER 13 OF 27 HCA COPYRIGHT 2004 ACS on STN  
 129:321225 Manufacture of medical catheter coated with xylylene polymer. Kawabata, Takashi (Nippon Zeon Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10263087 A2 **19981006** Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-90143 19970325.  
 AB A catheter is prepd. of which the hardness of the catheter is increased in the direction of the extension, esp. suitable for micro-catheter where pushability is improved. A part of catheter is coated with a xylene polymer by a polymn. of deposition. The thickness of the coating is greater in the direction of extension.  
 IT **25722-33-2, Poly(1,4-phenylene-1,2-ethanediyl)**  
     (manuf. of medical catheter coated with xylylene polymer)  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61M025-00  
 ICS A61M025-00; A61L029-00  
 CC 63-7 (Pharmaceuticals)  
     Section cross-reference(s): 38  
 IT **Medical goods**  
     (catheters; manuf. of medical catheter coated with xylylene)

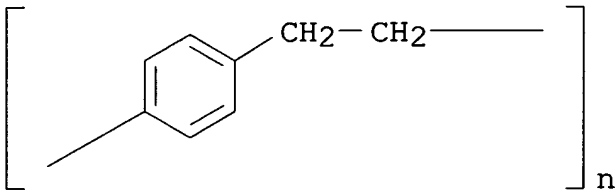


polymer)  
IT Coating materials  
Medical goods  
(manuf. of medical catheter coated with xylylene polymer)  
IT 25722-33-2, Poly(1,4-phenylene-1,2-ethanediyl)  
(manuf. of medical catheter coated with xylylene polymer)

L70 ANSWER 14 OF 27 HCA COPYRIGHT 2004 ACS on STN  
128:326528 Silver implantable medical device. Bates, Brian L.; Osborne, Thomas A.; Roberts, Joseph W.; Fearnot, Neal E.; Kozma, Thomas G.; Ragheb, Anthony O.; Voorhees, William D., III (Cook Inc., USA; Med Institute, Inc.). PCT Int. Appl. WO 9817331 A1 19980430, 61 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1997-US19188 19971023. PRIORITY: US 1996-29158 19961024; US 1996-741565 19961031; US 1997-803843 19970224.

AB A silver implantable medical device includes a structure adapted for introduction into the vascular system, esophagus, trachea, colon, biliary tract, or urinary tract; at least one layer of a bioactive material deposited on one surface of structure; and at least one porous layer deposited over the bioactive material layer deposited on one surface of structure and the bioactive-material-free surface. Also included is a layer or impregnation of silver. Preferably, the structure is a coronary **stent**. The porous layer is comprised of a polymer applied preferably by **vapor** or plasma **deposition** and provides a controlled release of the bioactive material. It is particularly preferred that the polymer is a polyamide, parylene or a parylene deriv., which is deposited without solvents, heat or catalysts, merely by condensation of a monomer vapor. Silver is included as a base material, coating or included in a carrier, drug, medicament material utilized with the implantable **stent**.

IT 25722-33-2, Parylene  
(silver implantable medical device)  
RN 25722-33-2 HCA  
CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61L029-00  
 ICS A61L031-00; A61L027-00; A61L033-00  
 CC 63-6 (Pharmaceuticals)  
 IT **Medical goods**  
 (catheters; silver implantable medical device)  
 IT **Medical goods**  
 (stents; silver implantable medical device)  
 IT 50-02-2, Dexamethasone 50-78-2, Aspirin 50-81-7, Ascorbic acid, biological studies 51-61-6, Dopamine, biological studies 59-02-9,  $\alpha$ -Tocopherol 64-86-8, Colchicine 67-68-5, DmsO, biological studies 70-51-9, Deferoxamine 79-10-7D, Acrylic acid, polymers 79-41-4D, Methacrylic acid, polymers 106-60-5, 5-Aminolevulinic acid 1177-87-3, Dexamethasone acetate 1501-84-4, Rimantadine hydrochloride 1675-54-3D, Bisphenol A diglycidyl ether, polymers 2392-39-4, Dexamethasone sodium phosphate 7439-88-5, Iridium, biological studies 7440-06-4, Platinum, biological studies 7440-22-4, Silver, biological studies 7440-25-7, Tantalum, biological studies 7440-32-6, Titanium, biological studies 7440-33-7, Tungsten, biological studies 7440-39-3D, Barium, compds., biological studies 7440-44-0, Carbon, biological studies 7440-57-5, Gold, biological studies 7553-56-2D, Iodine, compds., biological studies 7761-88-8, Silver nitrate, biological studies 8001-27-2, Hirudin 9002-84-0, PtfE 9002-88-4, Polyethylene 9004-35-7, Cellulose acetate 9004-70-0, Cellulose nitrate 9005-49-6, Heparin, biological studies 9054-89-1, Superoxide dismutase 10098-91-6, Yttrium 90, biological studies 10102-43-9, Nitric oxide, biological studies 10198-40-0, Cobalt-60, biological studies 12597-68-1, Stainless steel, biological studies 12606-02-9, Inconel 14596-37-3, Phosphorus 32, biological studies 14694-69-0, Iridium-192, biological studies 15421-84-8, Trapidil 15750-15-9, Indium 111, biological studies 22112-79-4 22260-51-1, Bromocriptine mesylate 24980-41-4, Polycaprolactone 25038-59-9, Polyethylene terephthalate, biological studies 25248-42-4, Polycaprolactone 25322-68-3, Peg 25322-69-4, Polypropylene oxide 25722-33-2, Parylene 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 30516-87-1, Azt 31396-84-6 33069-62-4, Taxol 37187-49-8, Cytochalasin 51589-12-9 52013-44-2, Nitinol

54965-24-1, Tamoxifen citrate 55142-85-3, Ticlopidine  
59277-89-3, Aciclovir 62669-70-9, Rhodamine 123 66104-23-2,  
Pergolide mesylate 71142-71-7 74863-84-6, Argatroban  
79217-60-0, Cyclosporin 104227-87-4, Famciclovir 107910-75-8,  
Ganciclovir sodium 128171-16-4, Hydroxybutyric acid-hydroxyvaleric  
acid copolymer 128270-60-0, Hirulog  
(silver implantable medical device)

L70 ANSWER 15 OF 27 HCA COPYRIGHT 2004 ACS on STN

128:208967 Protective coating for a **stent** with intermediate  
radiopaque coating. Callol, Joseph R.; Yan, John Y. (Advanced  
Cardiovascular Systems, Inc., USA). Eur. Pat. Appl. EP 824900 A2  
**19980225**, 9 pp. DESIGNATED STATES: R: BE, DE, FR, GB, IT,  
NL. (English). CODEN: EPXXDW. APPLICATION: EP 1996-309057  
19961212. PRIORITY: US 1996-701708 19960822.

AB The invention relates to coated **stents** and the method of  
making them. A **stent** that is substantially radiolucent is  
at least partially coated with a radiopaque layer that makes the  
**stent** visible under x-ray or fluoroscopy. A protective  
layer is coated on the **stent** and the radiopaque layer to  
protect both from scratches, flaking, and galvanic corrosion, and to  
improve both blood and bio-compatibility. For instance, a band of  
gold coating is placed around the **stent**, then a polymeric,  
metallic, or ceramic protective layer is applied by various coating  
process.

IT **9052-19-1**, Parylene c  
(protective coating for **stents** with intermediate  
radiopaque coating)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM A61F002-06

ICS A61L027-00

CC 63-7 (Pharmaceuticals)

ST **stent** radiopaque layer anticorrosive coating radiog

IT **Coating materials**

(anticorrosive; protective coating for **stents** with  
intermediate radiopaque coating)

IT **Coating process**

(condensation; protective coating for **stents** with  
intermediate radiopaque coating)

IT Imaging agents

(contrast, radiog.; protective coating for **stents** with  
intermediate radiopaque coating)

IT **Coating process**

(dip; protective coating for **stents** with intermediate  
radiopaque coating)

IT **Coating process**

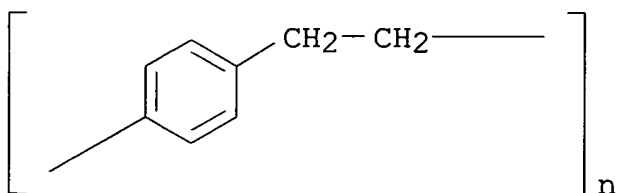
- (fluidized-bed; protective coating for **stents** with intermediate radiopaque coating)
- IT Nuclear fusion
  - (laser-induced; protective coating for **stents** with intermediate radiopaque coating)
- IT Welding of metals
  - (laser; protective coating for **stents** with intermediate radiopaque coating)
- IT **Coating process**
  - (painting; protective coating for **stents** with intermediate radiopaque coating)
- IT **Vapor deposition process**
  - (plasma; protective coating for **stents** with intermediate radiopaque coating)
- IT Polyurethanes, biological studies
  - Polyurethanes, biological studies
    - (polycarbonate-; protective coating for **stents** with intermediate radiopaque coating)
- IT Polycarbonates, biological studies
  - Polycarbonates, biological studies
    - (polyurethane-; protective coating for **stents** with intermediate radiopaque coating)
- IT Electrodeposition
  - Electrodeposition
  - Hydrogels
  - Ion implantation
  - Sputtering
  - Vapor deposition process**
    - (protective coating for **stents** with intermediate radiopaque coating)
- IT Polyurethanes, biological studies
  - Silicone rubber, biological studies
    - (protective coating for **stents** with intermediate radiopaque coating)
- IT Metals, biological studies
  - (radiopaque agent; protective coating for **stents** with intermediate radiopaque coating)
- IT Welding of metals
  - (resistance; protective coating for **stents** with intermediate radiopaque coating)
- IT **Coating process**
  - (spin; protective coating for **stents** with intermediate radiopaque coating)
- IT **Coating process**
  - (spray; protective coating for **stents** with intermediate radiopaque coating)
- IT **Medical goods**
  - (**stents**; protective coating for **stents** with

- intermediate radiopaque coating)
- IT titanium alloy  
(protective coating for **stents** with intermediate radiopaque coating)
- IT 7440-25-7, Tantalum, biological studies 7440-32-6, Titanium, biological studies  
(protective coating for **stents** with intermediate radiopaque coating)
- IT 12597-68-1, Stainless steel, biological studies 12683-48-6  
(protective coating for **stents** with intermediate radiopaque coating)
- IT 7782-42-5, Graphite, biological studies 9002-89-5, Polyvinyl alcohol 9003-20-7, Polyvinyl acetate **9052-19-1**, Parylene c 18488-92-1 18488-94-3 24980-41-4, Polycaprolactone 25038-57-7, Polymethylene 25248-42-4, Polycaprolactone 63138-52-3, Nedox  
(protective coating for **stents** with intermediate radiopaque coating)
- IT 7440-44-0, Carbon, biological studies  
(pyrolytic; protective coating for **stents** with intermediate radiopaque coating)
- IT 7440-39-3, Barium, biological studies 7440-57-5, Gold, biological studies 13463-67-7, Titanium oxide, biological studies  
(radiopaque agent; protective coating for **stents** with intermediate radiopaque coating)
- L70 ANSWER 16 OF 27 HCA COPYRIGHT 2004 ACS on STN
- 128:106455 Barrier coating against gas permeability for plastic evacuated blood collection devices. Tropsha, Yelena G.; Clarke, Richard P.; Antoon, Mitchel K. (Becton, Dickinson and Company, USA). Eur. Pat. Appl. EP 814114 A1 **19971229**, 9 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1996-109749 19960618.
- AB A plastic container for medical goods coated with a barrier coating is disclosed. The barrier coating is useful for providing an effective barrier against gas permeability in containers and for extending shelf-life of containers, esp. plastic evacuated blood collection devices. The coating comprises an inorg. layer and a polymeric layer. A silicone oxide coating was applied to polypropylene films then was subjected to a further coating of vinylidene chloride-acrylonitrile-Me methacrylate-Me acrylate-acrylic acid polymer. The oxygen transmission rate of the film was 0.028 as compared to 46-59 cc/m<sup>2</sup>-atm/day.
- IT **9052-19-1**, Parylene c **25722-33-2**, Parylene n  
(barrier coating against gas permeability for plastic evacuated blood collection devices)
- RN 9052-19-1 HCA
- CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM C08J007-04

ICS B01L003-14; A61B005-14

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 38

IT **Medical goods**

(coatings; barrier coating against gas permeability for plastic evacuated blood collection devices)

IT **Medical goods**

(containers, plastic; barrier coating against gas permeability for plastic evacuated blood collection devices)

IT **Coating materials**

(impermeable; barrier coating against gas permeability for plastic evacuated blood collection devices)

IT **Medical goods**

(tubes; barrier coating against gas permeability for plastic evacuated blood collection devices)

IT 1344-28-1, Aluminum oxide, biological studies 7631-86-9, Silicon oxide, biological studies **9052-19-1**, Parylene c

**25722-33-2**, Parylene n 52261-45-7, Parylene d 54140-75-9

(barrier coating against gas permeability for plastic evacuated blood collection devices)

L70 ANSWER 17 OF 27 HCA COPYRIGHT 2004 ACS on STN

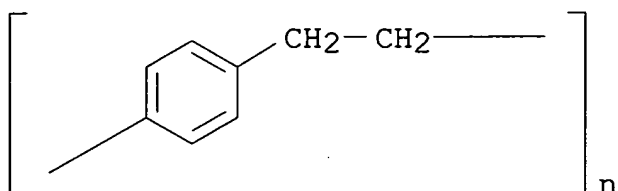
122:216663 Formation of poly(p-xylylene) films on ionomers. Takayama, Moritaka (Nippon Pariren Kk, Japan). Jpn. Kokai Tokkyo Koho JP 06336531 A2 **19941206** Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-146730 19930527.

AB Ionomers are treated with xylene before depositing with poly(p-xylylene) films. A degreased Himilan 1555 film was dipped in xylene, dried, and showed adhesion to poly(monochloro-p-xylylene) of 777 g/25 mm, vs. 118 g/25 mm, without the xylene treatment. The poly(p-xylylene)-coated ionomers are useful as packaging materials or medical stoppers.

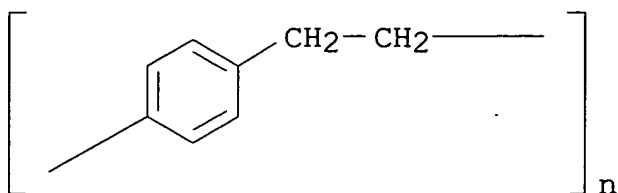
IT **9052-19-1 25722-33-2**, Poly(p-xylylene)

(xylene pretreatment of ionomers for adhesion to poly(p-xylylene) coatings)

RN 9052-19-1 HCA  
 CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)  
 \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM C08J007-04  
 ICS C08J007-16  
 ICI C08L023-26  
 CC 42-2 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 38, 63  
 IT **Coating process**  
 (xylene pretreatment of ionomers for adhesion to poly(p-xylylene) coatings)  
 IT **Medical goods**  
 (stoppers, manuf. of poly(p-xylylene)-coated ionomers)  
 IT **9052-19-1 25722-33-2, Poly(p-xylylene)**  
 (xylene pretreatment of ionomers for adhesion to poly(p-xylylene) coatings)  
 L70 ANSWER 18 OF 27 HCA COPYRIGHT 2004 ACS on STN  
 116:43131 Apparatus for coating with polymers by vacuum polymerization.  
 Vognar, Miroslav; Klinsky, Vladimir; Krystufek, Jan; Hruska, Jiri;  
 Hlavaty, Frantisek (Czech.). Czech. CS 266802 B1 **19901214**  
 , 4 pp. (Czech). CODEN: CZXXA9. APPLICATION: CS 1985-8078  
 19851108.  
 AB The title app., useful in deposition of protective coatings from  
 poly-p-xylylene or halo or alkyl derivs. for use in electronics or  
 medicine, consists of a sublimation vessel heated at  
 50-500°/133.3 Pa and connected via a control valve to a  
 pyrolysis chamber heated at 650-90°/26.6-66.5 Pa and thence  
 via a control valve to a polymn.-deposition vessel at  
 50-125°/13.3 Pa.  
 IT **25722-33-2P, Poly(1,4-phenylene-1,2-ethanediyl)**  
 (coatings, prepn. of, by vacuum polymn.-deposition, app. for)  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



- IC ICM C23C014-56  
 CC 42-2 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 47  
 IT Electric apparatus  
     **Medical goods**  
     (coating of, with polyxylylene, app. for)  
 IT **Vapor deposition** processes  
     (vacuum, polymn. and, app. for)  
 IT **25722-33-2P**, Poly(1,4-phenylene-1,2-ethanediyl)  
     26591-48-0P  
     (coatings, prepn. of, by vacuum polymn.-deposition, app. for)
- L70 ANSWER 19 OF 27 HCA COPYRIGHT 2004 ACS on STN  
 115:94431 Investigation of plasma-polymerized films as primers for  
     parylene-C coatings on neural **prosthesis** materials.  
     Yamagishi, Frederick G. (Hughes Res. Lab., Malibu, CA, 90265, USA).  
     Thin Solid Films, 202(1), 39-50 (English) **1991**. CODEN:  
     THSFAP. ISSN: 0040-6090.
- AB Parylene-C is a useful and **biocompatible polymer**  
     coating, but its adhesion to metals used in neural  
     **prosthesis** devices is not sufficient to achieve the  
     necessary lifetimes. Plasma-polymd. hydrocarbon films are developed  
     to act as primer layers for enhancing the adhesion of Parylene-C to  
     metallic surfaces. The metal surfaces should be clean. The wet and  
     dry adhesion of the overcoating is a function of the chem. nature of  
     the surface. Thus, excellent wet and dry adhesion is obtained on  
     clean Ta and Si surfaces overcoated with a very thin layer of SiO<sub>2</sub>.  
     In each case this thin layer is overcoated with plasma-polymd. CH<sub>4</sub>  
     and then Parylene-C. Since the latter two processes are free  
     radical processes, covalent bonds are created to enhance the  
     adhesion. Cleaning procedures and careful reaction conditions are  
     necessary.
- IT **9052-19-1**, Parylene C  
     (coatings, on neural **prostheses**, plasma-prepd.  
     polyalkane primers for)
- RN 9052-19-1 HCA  
 CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)  
 \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 CC 42-2 (Coatings, Inks, and Related Products)



- Section cross-reference(s): 38, 43
- ST neural **prosthesis** primer coating; polyarylenealkylene coating neural **prosthesis**; polymethane plasma coating primer
- IT **Prosthetic materials and Prosthetics**  
(neural, primer coatings on, plasma-prepd. polyalkanes as)
- IT **Coating materials**  
(primers, polyalkane, plasma-prepd., for neural **prostheses**)
- IT **9052-19-1, Parylene C**  
(coatings, on neural **prostheses**, plasma-prepd. polyalkane primers for)
- IT 27936-85-2, Polymethane 36427-13-1, Polyethane  
(primers, plasma-prepd., for poly(arylenealkylene) coatings on neural **prostheses**)

L70 ANSWER 20 OF 27 HCA COPYRIGHT 2004 ACS on STN

109:27586 Electrical insulation of implantable devices by composite polymer coatings. Nichols, M. F.; Hahn, A. W. (Univ. Missouri, MO, USA). ISA Transactions, 26(4), 15-18 (English) **1987**.  
CODEN: ISATAZ. ISSN: 0019-0578.

AB A method whereby ultrathin (10  $\mu$ m) composite films consisting of glow discharge and **vapor deposited** polymers (Parylene C) can be placed directly over integrated circuit substrates to provide protection from water and ions for up to 30 days (present test limits) was developed. The reactor, surface prepn., and polymn. conditions necessary to obtain the water/ion resistant coatings were described. Results indicate little changes in leakage current when comb patterns with 10  $\mu$ m line widths and the insulating composite coatings are exposed to physiol. saline soln. and a 3 VDC bias.

IT **9052-19-1, Parylene C**  
(elec. insulation of implantable devices by coating with)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 9, 42

IT **Medical goods**  
(integrated circuits, elec. insulation of implantable, by composite polymer coatings)

IT **9052-19-1, Parylene C**  
(elec. insulation of implantable devices by coating with)

L70 ANSWER 21 OF 27 HCA COPYRIGHT 2004 ACS on STN

101:136994 **Biocompatibility** of glow-discharge-polymerized films and vacuum-deposited parylene. Hahn, Allen W.; York, Donald H.; Nichols, Michael F.; Amromin, George C.;

Yasuda, H. K. (John M. Dalton Res. Cent., Univ. Missouri, Columbia, MO, 65211, USA). Journal of Applied Polymer Science: Applied Polymer Symposium, 38(Plasma Polym. Plasma Treat.), 55-64 (English) 1984. CODEN: JPSSDD. ISSN: 0271-9460.

AB Since glow discharge and vacuum-deposited polymers are formed without catalysts, their potential use as acceptable implant materials for animals or people is encouraging. The tissue response of 6 different glow-discharge-formed polymers and the vacuum-formed polymers of p-xylylene were evaluated. The tissues examd. for response were skeletal muscle tissue of rats and the cerebral cortical tissue of rabbits. Both quant. and qual. results are reported. In general, the tissue response to glow discharge polymers is acceptable as is the cortical response to the chlorinated form of paraxylylene (Parylene C [9052-19-1]). Adverse responses were seen most often in brain tissue. Tissue response in both tissues was graded. Thus, both types of polymers hold substantial promise for implant use as either protective or interfacial materials.

IT 9052-19-1 25722-33-2

(biocompatibility of vacuum-deposited)

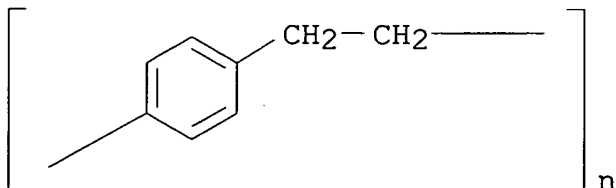
RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



CC 63-7 (Pharmaceuticals)

ST **biocompatibility polymer** film; Parylene  
biocompatibility; glow discharge **polymer**  
**biocompatibility**

IT Brain  
Muscle

(**biocompatibility** of glow-discharge **polymd.**  
films and vacuum-deposited parylene with)

IT Siloxanes and Silicones, biological studies  
(**biocompatibility** of glow-discharge **polymd.**  
films of)

IT **Prosthetic** materials and **Prosthetics**  
Surgical dressings and goods

(glow-discharge polymer films and vacuum-deposited parylenes for,

- biocompatibility of)
- IT Coating materials  
(polymer, biocompatibility of glow-discharge  
polymd. and vacuum-deposited)
- IT Nervous system  
(central, biocompatibility of glow-discharge  
polymd. films and vacuum-deposited parylene with)
- IT Electric discharge, chemical and physical effects  
(glow, on polymn. of films, biocompatibility  
in relation to)
- IT Polymerization  
(plasma, of polymer films, biocompatibility  
in relation to)
- IT 9002-83-9 9002-84-0 9002-88-4 9003-53-6 25038-57-7  
(biocompatibility of glow-discharge polymd.  
films of)
- IT 9052-19-1 25722-33-2  
(biocompatibility of vacuum-deposited)

L70 ANSWER 22 OF 27 HCA COPYRIGHT 2004 ACS on STN

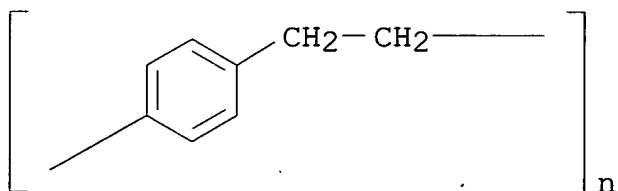
100:144942 Biocompatibility of glow discharge

polymerized films. Hahn, A. W.; York, D. H.; Nichols, M.  
F.; Yasuda, H. K.; Amromin, G. (John M. Dalton Res. Cent., Univ.  
Missouri, Columbia, MO, 65211, USA). Organic Coatings and Applied  
Polymer Science Proceedings, 47, 386-90 (English) 1982.  
CODEN: OCAPDE. ISSN: 0732-7528.

- AB Implants coated with glow-discharged polymd. films in the central  
nervous system (cortex and meninges) of rabbits showed some  
difference between the reactivity of these tissues and those  
obtained in skeletal muscle of rats. The films were synthesized in  
both tubular and bell-jar reactors. The films, polyethylene  
[9002-88-4], polystyrene [9003-53-6], and  
poly(chlorotrifluoroethylene) [9002-83-9] were formed over Silastic  
rods 1 mm diam. and 7 mm long. These films were deposited in a  
tubular reactor. Thinner films (0.1-0.3  $\mu$ m) of polymethane  
[27936-85-2] were obtained on a 250  $\mu$ m Pt wire which was used as  
a substrate for implantation in neuronal tissue. Vacuum deposited  
films of were also used. The coated rods, after sterilization in  
ethylene oxide, were implanted into the paravertebral muscles of  
male rats using uncoated Silastic as control, and necroscopy studies  
performed at 2, 4, 8, 12, and 24 wk. The material synthesized on Pt  
wire consisting of glow discharge polymethane and  
poly(tetrafluoroethylene) [9002-84-0] and the vacuum deposited  
films, were sterilized in ethylene oxide and implanted in rabbits of  
both sexes using uncoated Pt wire as control, and allowed to  
incubate for 8 wk. The biol. reactivity to any foreign material was  
shown to be a function of time, and 8 wk is approx. the time whereby  
all transient reactions have disappeared from the host animal.

Skeletal muscle reactivity to glow discharge polymers is approx. on the same order of magnitude as that of control material, whereas the reactivity of the central nervous system (esp. the cortex) is dependent upon the particular polymer implanted, minimal reactivity with the glow discharge polymethane and significant untoward reaction to the vacuum deposited Parylene-N.

IT 9052-19-1 25722-33-2  
 (glow-discharge polyimd. films of, implant coated with,  
 biocompatibility of)  
 RN 9052-19-1 HCA  
 CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)  
 \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



CC 63-7 (Pharmaceuticals)  
 IT Polymers, biological studies  
 (implant coated with films of glow-discharge polyimd.,  
 biocompatibility of)  
 IT Brain  
 Muscle  
 (implant coated with glow discharge-polyimd. films  
 biocompatibility with)  
 IT Nervous system  
 (central, implant coated with glow discharge-polyimd.  
 films biocompatibility with)  
 IT Electric discharge, chemical and physical effects  
 (glow, films polyimd. by, biocompatibility of  
 implants coated with)  
 IT Prosthetic materials and Prosthetics  
 (implants, glow discharge polyimd. films for,  
 biocompatibility of)  
 IT 9002-83-9 9002-84-0 9002-88-4 9003-53-6 9052-19-1  
 25722-33-2 27936-85-2  
 (glow-discharge polyimd. films of, implant coated with,  
 biocompatibility of)

L70 ANSWER 23 OF 27 HCA COPYRIGHT 2004 ACS on STN

95:12731 Glow discharge polymers as coatings for implanted devices.

Hahn, Allen W.; Yasuda, H. K.; James, William J.; Nichols, Michael

F.; Sadhir, R. K.; Sharma, Ashok K.; Pringle, Oran A.; York, Donald H.; Charlson, E. Joseph (John M. Dalton Res. Cent., Univ. Missouri, Columbia, MO, USA). Biomedical Sciences Instrumentation, 17, 109-13 (English) 1981. CODEN: BMSIA7. ISSN: 0067-8856.

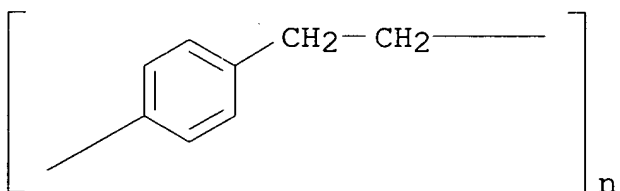
AB Ultrathin ( $\text{apprx.} \leq 0.1 \mu\text{M}$ ) coatings of org. polymers deposited in a "glow discharge" have the capacity of forming highly adherent bonds to such substrate materials as Pt. They also have surface characteristics ideal for the adherence of Parylene (poly-p-xylylene) [25722-33-2] in a thicker insulating layer. Thus, tightly adherent films are made that can prevent the migration of water and ions along lateral pathways. During repeated adherence tests, even after several hours in boiling saline solns., during repeated small strain flexings, and during attempts to pass large currents, these composite films are rugged and potentially capable of withstanding in vivo conditions for long periods of time.

IT 25722-33-2

(biomedical implant elec. insulators contg. glow discharge polymers and)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



CC 63-7 (Pharmaceuticals)

ST implant elec insulator; glow discharge polymer coating  
**prosthesis**

IT **Coating materials**

(glow discharge polymers and Parylene, for biomedical implants)

IT **Prosthetic materials and Prosthetics**

(implants, elec. insulators for, from glow-discharge polymers and Parylene)

IT 25722-33-2

(biomedical implant elec. insulators contg. glow discharge polymers and)

L70 ANSWER 24 OF 27 HCA COPYRIGHT 2004 ACS on STN

94:71446 Polymeric conformal coatings for implantable electronic devices. Devanathan, Deva; Carr, Rand (Intermedics, Inc., Freeport, TX, 77541, USA). IEEE Transactions on Biomedical Engineering, BME-27(11), 671-4 (English) 1980. CODEN: IEBEAX. ISSN: 0018-9294.

AB Of various polymer coatings used as moisture barriers for

implantable devices such as cardiac pacemakers, Parylene C [ 9052-19-1] performed the best upon immersion in saline soln. for 30 days. The 2nd best was conformal coating R-4-3117 (moisture cured polydimethyl siloxane). The **vapor** phase **deposition** of Parylene C produced a uniform coating thickness. Parylene C also had extremely good adhesion, so much so that it was difficult to remove from substrates. Polyvinylidene chloride [9002-85-1] had poor adhesion.

IT 9052-19-1

(coating material, for implantable elec. devices)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 63-7 (Pharmaceuticals)

IT **Prosthetic** materials and **Prosthetics**

(polymer coating for, implantable elec. devices in relation to)

IT **Coating materials**

(polymer, for implantable elec. devices)

IT 9002-85-1 9052-19-1 25135-99-3

(coating material, for implantable elec. devices)

L70 ANSWER 25 OF 27 HCA COPYRIGHT 2004 ACS on STN

94:71420 Parylene coated polypropylene microfibers as cell seeding substrates. Tittmann, F. R.; Beach, W. F. (Chem. Plast. Div., Union Carbide Corp., Bound Brook, NJ, 08805, USA). Synth. Biomed. Polym.: Concepts Appl., 117-31. Editor(s): Szycher, Michael; Robinson, William J. Technomic: Westport, Conn. (English) 1980. CODEN: 44RKAR.

AB A synthetic microfiber fabric was developed for use in blood circulation assist devices, providing for blood compatibility in cardiovascular **prostheses** by the neointimal tissue scaffolding approach. The fabric is a nonwoven highly porous network, .apprx.25  $\mu$  thick, of polypropylene fibers .apprx.1  $\mu$  in diam. It is bonded to the nonporous wall of the **prosthesis** with an adhesive, and made suitable for the attachment and growth of tissue cells by a **vapor-deposited** conformal coating of parylene C [ 9052-19-1], followed by an elec. discharge treatment. Various animal and cell culture tests have evaluated the microfabric as a substrate for cultured, autologous endothelial cell linings, both in vitro and in animals as the surfaces of aortic grafts of axisym. blood pump bladders in left ventricular assist devices.

IT 9052-19-1

(polypropylene fibers coated with, as cell seeding substrates, heart **prostheses** in relation to)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

- CC 63-7 (Pharmaceuticals)  
ST parylene coating polypropene **prostheses**; heart  
**prosthesis** parylene polypropene  
IT **Prosthetic** materials and **Prosthetics**  
(Parylene C coated-polypropylene fibers)  
IT Polypropene fibers, biological studies  
(Parylene C-coated, as cell seeding substrates, heart  
**prostheses** in relation to)  
IT **9052-19-1**  
(polypropylene fibers coated with, as cell seeding substrates,  
heart **prostheses** in relation to)
- L70 ANSWER 26 OF 27 HCA COPYRIGHT 2004 ACS on STN  
80:124722 Ultrathin microfiber lining for artificial organs. Miller,  
Walter A.; Spivack, Mark A.; Tittmann, Frederick R.; Byck, Joseph S.  
(Union Carbide Corp., Bound Brook, NJ, USA). Textile Research  
Journal, 43(12), 728-34 (English) 1973. CODEN: TRJOA9.  
ISSN: 0040-5175.
- AB An ultrathin nonwoven fabric was developed for use as a lining in  
artificial organs. Its function is to anchor a living lining of  
healthy tissue which will act as a blood compatible interface to  
prevent traumatic blood/device interactions. The fabric is only  
about 0.001 in(25 microns) thick and consists of polypropylene  
microfibers only about 1 micron in diameter. The fiber network is  
bonded, reinforced, and rendered suitable for attachment of tissue  
cells by a **vapor deposited** conformal coating of  
Parylene C. The microfibers are formed by coextrusion of  
polypropylene with an incompatible ethylene copolymer salt in the  
form of an oriented thin film. Extn. of second component, followed  
by transverse drafting, yields the nonwoven fabric. Special  
techniques were developed for modifying the porosity of the  
microfiber network.
- IT **9052-19-1**  
(polypropene fiber coating, for artificial organ lining)  
RN 9052-19-1 HCA  
CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)  
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
CC 63-7 (Pharmaceuticals)  
Section cross-reference(s): 39  
IT **Prosthetic** materials and **Prosthetics**  
(polypropene fibers, as artificial organ linings)  
IT **9052-19-1**  
(polypropene fiber coating, for artificial organ lining)
- L70 ANSWER 27 OF 27 HCA COPYRIGHT 2004 ACS on STN  
77:168586 Microfiber materials for growth of intimal linings in  
circulatory assist devices. Byck, Joseph S.; Barth, Bruce P.;  
Gaasch, John F.; Miller, Walter A.; Stewart, Donald D. (Chem.

Plast., Union Carbide Corp., Bound Brook, NJ, USA). U. S. Nat. Tech. Inform. Serv., PB Rep., No. 210611, 46 pp. Avail. NTIS From: Govt. Rep. Announce. (U.S.) 1972, 72(16), 55 (English) 1972  
. CODEN: XPBRCA.

AB An ultrathin non-woven fabric which can be bonded to the blood contacting surfaces of circulatory assist devices to provide a substrate for growth and anchoring of intimal linings was developed. The fabric consists of extremely fine polypropylene fibers conformally coated with **vapor deposited** Parylene C and is produced by extn. and transverse drafting of a tape prepd. by coextrusion of a mixt. of immiscible thermoplastics. Particular emphasis was placed on variation of fabric porosity to achieve max. cellular penetration and entrapment. A technique known as vertical drafting was developed to permit control of this parameter. Attention has also been given to problems assocd. with construction of microfiber-lined devices and to modification of surface properties of the coated fibers. Preliminary results of tissue growth studies are reported.

IT 9052-19-1

(polypropylene coated with, as lining for circulatory assist devices)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 63-7 (Pharmaceuticals)

ST microfiber circulatory **prosthetic**; polypropylene circulatory **prosthetic**

IT 9052-19-1

(polypropylene coated with, as lining for circulatory assist devices)

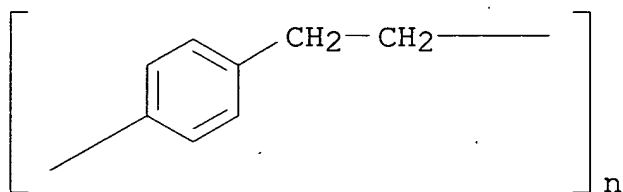
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L71 ANSWER 1 OF 17 HCA COPYRIGHT 2004 ACS on STN

137:358233 Process for manufacturing electrically conductive components. Milojevic, Dusan; Parker, John (Cochlear Limited, Australia). PCT Int. Appl. WO 2002089907 A1 20021114, 87 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-AU575 20020507. PRIORITY: AU 2001-4818 20010507; AU 2002-1924 20020423.



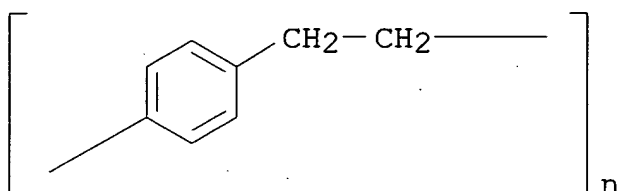
- AB Disclosed is a method of forming a device, such as an electrode array for a cochlear implant. The method comprises a step of forming a predetd. pattern of relatively elec. conductive regions and relatively elec. resistive regions in a sheet of biocompatible elec. conductive material, such as platinum foil. The method can comprise a step off working on the sheet to remove predetd. portions therefrom to form the one or more discrete relatively conducting regions. The step of working on the sheet can comprise embossing the sheet, cutting or slicing the sheet, or using elec. discharge machining (EDM) to remove unwanted portions of the sheet, the EDM equipment having a cutting tool comprising an electrode.
- IT **25722-33-2**, Poly(p-phenyleneethylene)  
(coating agent; process for manufg. elec. conductive components for intracochlear implants)
- RN 25722-33-2 HCA
- CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



- IC ICM A61N001-05  
ICS H01L021-78
- CC 63-7 (Pharmaceuticals)
- IT **Prosthetic materials and Prosthetics**  
(implants; process for manufg. elec. conductive components for intracochlear implants)
- IT 9002-84-0, Polytetrafluoroethylene 9002-89-5, Polyvinyl alcohol  
9003-01-4, Polyacrylic acid **25722-33-2**,  
Poly(p-phenyleneethylene)  
(coating agent; process for manufg. elec. conductive components for intracochlear implants)
- L71 ANSWER 2 OF 17 HCA COPYRIGHT 2004 ACS on STN
- 137:14559 Polymer coated desiccant sheet with activation strip for electronic packages. Taylor, Jeffrey B.; Hansen, John E. (Cardiac Pacemakers, Inc., USA). U.S. Pat. Appl. Publ. US 2002066203 A1 20020606, 8 pp. (English). CODEN: USXXCO. APPLICATION: US 2000-730347 20001205.
- AB An app. for drying the air inside of hermetically sealed electronic devices is claimed. The app. includes a desiccant part and an activation piece that is attached to the desiccant part. The desiccant part and activation piece are attached together and then covered, except for the portions where the two pieces are attached,

with a polymer that has a low moisture vapor transmission rate, such as parylene. The app. may be added into an electronic device during assembly. The desiccant, or drying agent, is not activated, by removal of the activation piece, until prior to closure of the hermetically sealed electronic device.

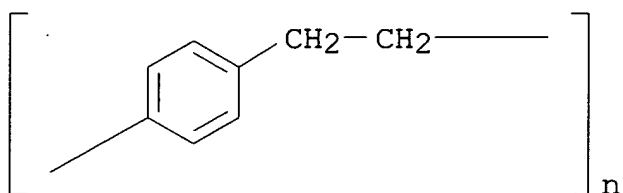
IT 25722-33-2, Parylene  
 (polymer coated desiccant sheet with activation strip for electronic packages)  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM F26B021-06  
 ICS B01J020-00  
 NCL 034080000  
 CC 76-14 (Electric Phenomena)  
 Section cross-reference(s): 63  
 IT **Prosthetic materials and Prosthetics**  
 (implants, artificial heart pacemaker; polymer coated desiccant sheet with activation strip for electronic packages)  
 IT 25722-33-2, Parylene  
 (polymer coated desiccant sheet with activation strip for electronic packages)  
 L71 ANSWER 3 OF 17 HCA COPYRIGHT 2004 ACS on STN  
 135:231751 Parylene-coated components for inflatable penile **prosthesis**. Kuyava, Charles C. (American Medical Systems, Inc., USA). PCT Int. Appl. WO 2001067996 A2 20010920, 21 pp. DESIGNATED STATES: W: AU, CA, JP, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US40202 20010301. PRIORITY: US 2000-526051 20000315.  
 AB A penile **prosthesis** beneficially includes components coated with parylene in order to increase product life and reduce wear. In particular, components of the inflatable cylinder benefits from having been coated with parylene. The parylene-coated cylinder components are resistant to wear generated by pinching of the cylinder when the cylinder is in a flaccid state. The parylene-coated cylinder may be formed by masking a tube of silicone (or other appropriate material) and vapor coating the silicone tube with parylene. Further, where a double walled cylinder is used,

each of two tubes making up the double wall cylinder can have their surfaces coated with parylene, thus increasing cylinder life and avoiding wear. A side-elevational view of a penile **prosthesis** system including a reservoir, a pump and valve assembly, and a cylinder is depicted (no data).

IT 25722-33-2, Parylene  
 (parylene-coated components for inflatable penile **prosthesis**)  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61F002-26  
 ICS A61L027-34  
 CC 63-7 (Pharmaceuticals)  
 ST parylene coating inflatable penile **prosthesis**  
 IT **Prosthetic materials and Prosthetics**  
 (parylene-coated components for inflatable penile **prosthesis**)  
 IT Polysiloxanes, biological studies  
 Polyurethanes, biological studies  
 (parylene-coated components for inflatable penile **prosthesis**)  
 IT Penis  
 (**prosthesis** for; parylene-coated components for inflatable penile **prosthesis**)  
 IT 25722-33-2, Parylene  
 (parylene-coated components for inflatable penile **prosthesis**)

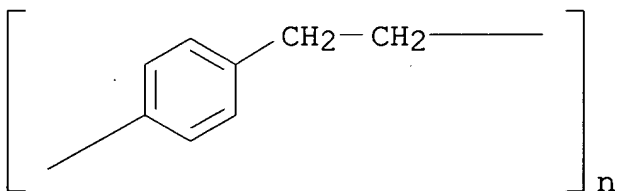
L71 ANSWER 4 OF 17 HCA COPYRIGHT 2004 ACS on STN

135:200378 Long- and short-term effects of biological hydrogels on capsule microvascular density around implants in rats. Ravin, A. G.; Olbrich, K. C.; Levin, L. S.; Usala, A-L.; Klitzman, B. (Kenan Plastic Surgery Research Laboratories, Duke University Medical Center, Durham, NC, 27710, USA). Journal of Biomedical Materials Research, 58(3), 313-318 (English) 2001. CODEN: JBMRBG. ISSN: 0021-9304. Publisher: John Wiley & Sons, Inc..

AB Fibrous capsule formation around implants can inhibit solute exchange between implantable devices and the circulation. Parylene-n coated polycarbonate disks surrounded with growth factor

reduced Matrigel (MG) or several gelatin-based matrixes were implanted i.m. into rats for 21 or 50 days. MG supplemented with vascular endothelial growth factor (VEGF) or basic fibroblast growth factor (bFGF) increased capsule microvascular d. at 21 days when compared to bare parylene-coated polycarbonate disks (control). The increased microvascular d. around VEGF- and bFGF-treated implants regressed by 50 days and was no longer significantly different from controls. The microvascular d. induced by the gelatin-based matrixes was not significantly different from controls at 21 days, but was increased at 50 days, suggesting a slower, long-term effect. Disks treated with MG and gelatin-based matrixes had thinner capsules at 21 days. By 50 days, the capsule thicknesses around these implants were no longer statistically thinner than controls. The capsule thickness around implants treated with VEGF, bFGF, and essential gelatin-based matrix was thinner than controls at 50 days. Thus, it is possible to increase functional microvascular d. within fibrous capsules by using angiogenic growth factors and gelatin-based matrixes. However, this effect may be short-lived, requiring chronic administration of growth factors.

IT 25722-33-2, Parylene-n  
(biol. hydrogels effects on capsule microvascular d. around implants)  
RN 25722-33-2 HCA  
CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



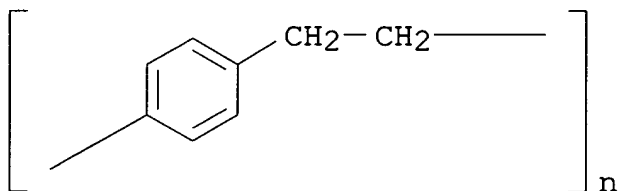
CC 63-7 (Pharmaceuticals)  
IT **Prosthetic materials and Prosthetics**  
(implants; biol. hydrogels effects on capsule microvascular d. around implants)  
IT 25722-33-2, Parylene-n  
(biol. hydrogels effects on capsule microvascular d. around implants)

L71 ANSWER 5 OF 17 HCA COPYRIGHT 2004 ACS on STN  
135:157722 Magnetic resonance imaging compatible gold-copper alloys for implants. (Ruebben, Alexander, Germany; Buecker, Arno). Ger. Gebrauchsmusterschrift DE 20004915 U1 20010809, 7 pp. (German). CODEN: GGXXFR. APPLICATION: DE 2000-20004915 20000319. PRIORITY: DE 2000-20002932 20000220.

AB The invention concerns magnetic resonance compatible alloys as

**prosthetic** material for implants that contain (wt./wt.%): Au 30.0-70.0; Cu 30.0-70.0; Pt 0-7.5; Pd 0-10.0; Ir 0-5; Ag 0-20; Zn 0-5; Sn 0-5; Ru 0-5. The implant alloys are coated with polymers, e.g. parylene, noble metals or noble metal alloys.

IT **25722-33-2, Parylene**  
 (magnetic resonance imaging compatible gold-copper alloys for implants)  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61L027-04  
 CC 63-7 (Pharmaceuticals)  
 IT **Prosthetic materials and Prosthetics**  
 (implants; magnetic resonance imaging compatible gold-copper alloys for implants)  
 IT **25722-33-2, Parylene** 352669-04-6 352669-05-7  
 (magnetic resonance imaging compatible gold-copper alloys for implants)

L71 ANSWER 6 OF 17 HCA COPYRIGHT 2004 ACS on STN  
 133:301246 Method for making cardiac leads with zone insulated electrodes. Spehr, Paul R. (Intermedics Inc., USA). U.S. US 6134478 A **20001017**, 12 pp., Cont.-in-part of U. S. 92,106. (English). CODEN: USXXAM. APPLICATION: US 1999-366400 19990803. PRIORITY: US 1998-92106 19980605.

AB A method of fabricating a high impedance cardiac lead electrode is provided. The method includes the steps of providing an electrode member and coating a first portion of the electrode member with an elec. insulating material and placing a tubular mask or shield over the electrode. Portions of the insulating material are removed to expose selected areas of the electrode. The second or exposed portion enhances the impedance of the electrode, resulting in power savings and extended life spans for implantable stimulation and sensing devices. Exemplary materials for the coating includes diamond-like carbon and sapphire.

IT **9052-19-1, Parylene C**  
 (cardiac leads with zone insulated electrodes)  
 RN 9052-19-1 HCA  
 CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)  
 \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

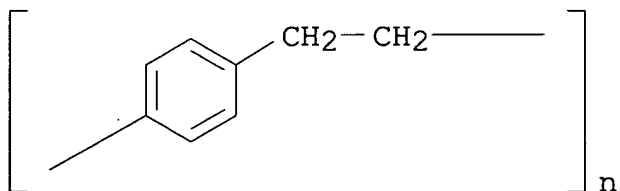
IC ICM A61N001-05  
 NCL 607115000  
 CC 63-7 (Pharmaceuticals)  
 IT **Prosthetic materials and Prosthetics**  
     (cardiovascular implants; cardiac leads with zone insulated electrodes)  
 IT 1317-82-4, Sapphire 9052-19-1, Parylene C 12645-46-4,  
     Iridium oxide  
     (cardiac leads with zone insulated electrodes)

L71 ANSWER 7 OF 17 HCA COPYRIGHT 2004 ACS on STN  
 132:352658 Modification of capsule formation around implants using  
 matrixes embedded with growth factors. Ravin, Adam G.; Olbrich,  
 Kevin C.; Alexander, Marsha A.; Levin, L. Scott; Klitzman, Bruce  
 (Division of Plastic Surgery, Duke University Medical Center,  
 Durham, NC, USA). Surgical Forum, 50, 620-622 (English)  
 1999. CODEN: SUFOAX. ISSN: 0071-8041. Publisher: American  
 College of Surgeons.

AB Implant modification with 2 Encelle matrixes and the growth  
 factor-reduced Matrigel conditions inhibited capsule growth at 21  
 days. Inclusion of vascular growth factors within a hydrogel matrix  
 increased microvascular d. at 21 days. Results suggest that  
 precoating implants with matrixes and growth factor may improve  
 implant/tissue interaction by improving transport kinetics and  
 inhibiting fibrous capsule formation.

IT 25722-33-2, Parylene N  
     (modification of capsule formation around implants using matrixes  
     embedded with growth factors)

RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



CC 63-7 (Pharmaceuticals)  
 IT **Prosthetic materials and Prosthetics**  
     (implants; modification of capsule formation around implants  
     using matrixes embedded with growth factors)

IT 25722-33-2, Parylene N 106096-93-9, Basic fibroblast  
 growth factor 119978-18-6, Matrigel 127464-60-2, Vascular  
 endothelial growth factor  
     (modification of capsule formation around implants using matrixes  
     embedded with growth factors)

L71 ANSWER 8 OF 17 HCA COPYRIGHT 2004 ACS on STN

130:7450 Bioartificial devices and cellular matrixes. Usala, Anton-Lewis (Encelle Inc., USA). U.S. US 5834005 A 19981110, 34 pp., Cont.-in-part of U.S. Ser. No. 300,429, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1995-568482 19951207. PRIORITY: US 1992-841973 19920224; US 1994-300429 19940902.

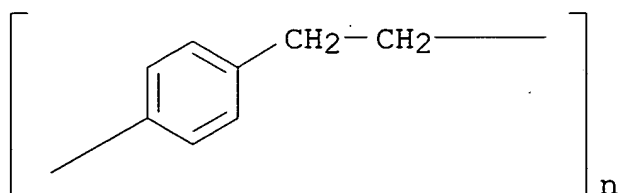
AB A device for the effective release of cellular moieties, including hormones, wherein a matrix contg. a hormone-producing cellular moiety is encapsulated with a non-immunogenic polymer such as poly(p-xylylene) having a membrane portion with a porosity blocking passage of immunogenic agents is described. The membrane permits passage of nutrients for the cellular moiety and the hormone produced, and an improved matrix is described for the storage, manuf., functional testing, and viral infection testing of cellular moieties wherein a collagen based hydrogel is processed to present a liq. phase at host temp. and functions as a substrate for cellular attachment with additives effective for limiting thermal and pressure trauma, and an improved method for the harvesting tissue from organs. A membrane of poly(p-xylylene) having a thickness of 3271 Å was mounted on a cylindrical sleeve and partially immersed in distd. water. A liq. contg. components of varying mol. wts. was placed on the upper surface of the membrane. Thereafter samples of the water were applied to an SDS-PAGE gel and subjected to electrophoresis to sep. the samples according to mol. wts. Low mol. wts. corresponding to glucose, insulin and cell nutrients were identified and higher mol. wt. components, i.e., >26,000 were excluded.

IT 25722-33-2, Poly(p-xylylene)

(bioartificial devices and cellular matrixes)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



IC ICM A61F002-02

ICS A61K047-30; C12N011-04

NCL 424424000

CC 63-7 (Pharmaceuticals)

IT **Prosthetic materials and Prosthetics**

(implants; bioartificial devices and cellular matrixes)

IT 25722-33-2, Poly(p-xylylene) 215858-24-5 215858-38-1  
(bioartificial devices and cellular matrixes)

L71 ANSWER 9 OF 17 HCA COPYRIGHT 2004 ACS on STN

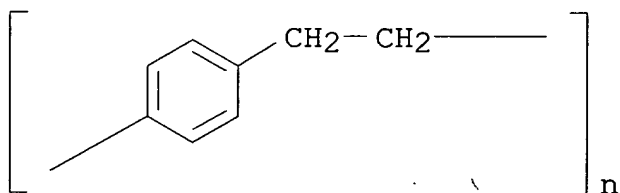
129:193669 Development of silicon microelectrodes for cochlear implant technology. Parker, Joanna R.; Harrison, H. Barry; Clark, Graeme M.; Patrick, Jim; Reinhold, Olaf (Cooperative Research Centre for Cochlear Implant, Speech and Hearing Research, Australia). Conference on Optoelectronic and Microelectronic Materials and Devices, Proceedings, Canberra, Australia, Dec. 8-11, 1996, Meeting Date 1996, 12-15. Editor(s): Jagadish, C. Institute of Electrical and Electronics Engineers: New York, N. Y. (English) 1997. CODEN: 66KHAJ.

AB Silicon fabrication technol. is being explored as a possible soln. to the manufg. of advanced cochlear implant electrode arrays. Silicon probes have been produced with thickness of 5  $\mu\text{m}$  and coated with Parylene polymer to provide strength. To enable handling they are given a backing of silicone rubber before surgical use. This paper presents some techniques used to produce such silicon microelectrodes.

IT 25722-33-2, Parylene  
(silicon microelectrodes for cochlear implant technol.)

RN 25722-33-2 HCA

CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



CC 63-7 (Pharmaceuticals)

IT **Prosthetic materials and Prosthetics**

(implants; silicon microelectrodes for cochlear implant technol.)

IT 7440-21-3, Silicon, biological studies 25722-33-2,

Parylene

(silicon microelectrodes for cochlear implant technol.)

L71 ANSWER 10 OF 17 HCA COPYRIGHT 2004 ACS on STN

127:86153 Bioartificial devices and cellular matrixes for them. Usala, Anton-Lewis (Encelle, Inc., USA; Usala, Anton-Lewis). PCT Int.

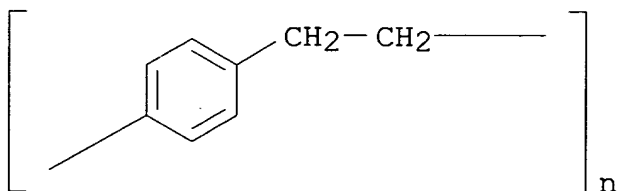
Appl. WO 9720569 A2 19970612, 74 pp. DESIGNATED STATES:

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, TJ, TM, TR, TT, UA,



UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1996-US18209 19961114. PRIORITY: US 1995-568694 19951207.

- AB An implantable device for the effective release of therapeutically desirable entities including hormones, wherein a matrix contg. a cellular moiety which produces a therapeutically desirable entity is encapsulated with a non-immunogenic polymeric material of poly-para-xylylene or other arom. based moiety having a membrane portion with a porosity effective to block passage of immunogenic agents while permitting passage of nutrients for said cellular moiety and of the entity produced thereby; an improved matrix for the storage, manuf., functional testing, and viral infection testing of cellular moieties comprising a collagen and aq. nutrient based hydrogel with additives effective for limiting thermal and pressure trauma; and an improved method for the harvesting of cellular moieties from organ tissue by digesting the tissue in the presence of a nitric oxide inhibitor.
- IT **25722-33-2**, Poly-p-xylylene  
(bioartificial devices and cellular matrixes for them)
- RN 25722-33-2 HCA
- CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



- IC ICM A61K035-12  
ICS A61K009-00; C12N005-00
- CC 63-7 (Pharmaceuticals)
- IT **Prosthetic materials and Prosthetics**  
(implants; bioartificial devices and cellular matrixes for them)
- IT 52-90-4, Cysteine, biological studies 56-89-3, Cystine, biological studies 74-79-3D, L-Arginine, analogs, biological studies 79-17-4, Aminoguanidine 157-06-2, D-Arginine 2480-28-6 9004-54-0, Dextran, biological studies 9005-49-6, Heparin, biological studies 9037-22-3, Amylopectin 9042-14-2, Dextran sulfate **25722-33-2**, Poly-p-xylylene 33640-34-5  
(bioartificial devices and cellular matrixes for them)
- L71 ANSWER 11 OF 17 HCA COPYRIGHT 2004 ACS on STN
- 107:12866 Tissue response to potential neuroprosthetic materials implanted subdurally. Yuen, Ted G. H.; Agnew, William F.; Bullara,

Leo A. (Neurol. Res. Lab., Huntingdon Med. Res. Inst., Pasadena, CA, 91105, USA). Biomaterials, 8(2), 138-41 (English) 1987.

CODEN: BIMADU. ISSN: 0142-9612.

AB The response of the leptomeninges and underlying cerebral cortex of the cat to subdural implantation of 3 insulating materials (HR605-P, Parylene-C and PI-2555) and a polymeric electrode component (Me methacrylate-methacrylamidopropyltrimethylammonium chloride copolymer) was studied histol. for 8 and 16 wk. The tissue reactions were compared with those elicited by the arrays of Dacron mesh matrixes, pure Pt controls and by pos. controls (Ag-AgCl) known to cause reactions in the brain. Sites beneath the Dacron mesh matrix, pure Pt control implants and beneath all insulating materials implanted for 8 and 16 wk appeared indistinguishable, exhibiting little tissue reaction. All neurons appeared normal. The leptomeninges and cortex beneath the Ag-AgCl implants showed a chronic inflammatory reaction after 8 and 16 wk.

IT 9052-19-1, Parylene-C

(subdural response to, as potential neuroprosthetic material)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 63-7 (Pharmaceuticals)

IT **Prosthetic materials and Prosthetics**

(implants, neuro-, polymers for, subdural response to)

IT 9052-19-1, Parylene-C 31942-21-9 99581-76-7

108334-33-4

(subdural response to, as potential neuroprosthetic material)

L71 ANSWER 12 OF 17 HCA COPYRIGHT 2004 ACS on STN

99:146081 In vitro corrosion study of porous metal fiber coatings for bone ingrowth. Ducheyne, P. (Dép. Metall., Louvain, B-3030, Belg.). Biomaterials, 4(3), 185-91 (English) 1983. CODEN: BIMADU. ISSN: 0142-9612.

AB As part of a biocompatibility testing program of porous metals as bone implant materials, the effects of porosity on the in vitro corrosion and the amt. of metal ions entering into soln. were investigated. Porous stainless steel, porous stainless steel coated with poly(monochloro-p-xylene) (I) [9052-19-1] and porous Ti were used in the expts. Porous stainless steel coated with I and porous stainless steel without any coating, were unacceptable for clin. application. Porous Ti behaved as bulk Ti. No corrosion could be initiated in the porous specimens in the potential range studied. Based on clin. acceptability of bulk Ti, it is suggested that porous Ti will not be subjected to in vivo corrosion. The apparent c.d. of porous Ti increased rapidly with increasing anodizing potential.

IT 9052-19-1

(stainless steel fibers coated with, for bone implants, corrosion

of)  
RN 9052-19-1 HCA  
CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)  
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
CC 63-7 (Pharmaceuticals)  
ST metal fiber corrosion; titanium fiber bone implant; stainless steel  
bone implant; **prosthetic** metal fiber corrosion  
IT **Prosthetic** materials and **Prosthetics**  
(implants, metal fibers for bone, corrosion of)  
IT **9052-19-1**  
(stainless steel fibers coated with, for bone implants, corrosion  
of)

L71 ANSWER 13 OF 17 HCA COPYRIGHT 2004 ACS on STN

86:145899 Cell-lined, nonwoven microfiber scaffolds as a blood  
interface. Burkel, William E.; Kahn, Raymond H. (Dep. Anat., Univ.  
Michigan, Ann Arbor, MI, USA). Annals of the New York Academy of  
Sciences, 283, 419-37 (English) 1977. CODEN: ANYAA9.  
ISSN: 0077-8923.

AB Human cells were cultivated in vitro on microfiber scaffolds lining  
nonporous vascular **prostheses** and discs. The scaffolds  
were fabricated as nonwoven meshes of nylon 66, poly(tetramethylene  
terephthalate) [26062-94-2] or polypropylene 0.2-2 $\mu$ m diam.  
microfibers. The fibers were left bare, microwave  
discharge-treated, coated with C, Parylene-C [9052-19-1],  
or combinations of these. WI-38 cells were used to test  
biocompatibility and potentially autologous human cell lines  
(epidermal, endothelial, and urinary tract epithelium) were used to  
produce pseudointimas. The scaffolds were seeded with cells by  
centrifugation and cultivated by roller bottle perfusion or in  
Falcon tissue culture flasks. Perfusion culture gave more efficient  
coverage than static culture. WI-38 cells produced 54-100%  
coverage, depending on the microfiber compn. Epidermal cells  
yielded excellent pseudointimas with the polyester microfibers as  
the best overall substrate and nylon microwave-treated fibers as the  
least effective. Adult human endothelium produced coverages of  
28-94%, while urothelium provided the poorest pseudointimas.

IT **9052-19-1**  
(nylon and polypropylene microfiber scaffolds coating by, human  
cell pseudointima formation response to)

RN 9052-19-1 HCA  
CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)  
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
CC 63-7 (Pharmaceuticals)  
Section cross-reference(s): 13  
ST **prosthetic** microfiber scaffold pseudointima  
IT Polyester fibers, biological studies  
(butanediol-terephthalic acid, vascular **prosthetics**,

- pseudointima formation on)
- IT **Prosthetic materials and Prosthetics**  
(microfiber scaffolds, pseudointima formation on, by human cells)
- IT Polyamide fibers, biological studies  
(vascular **prosthetics**, pseudointima formation on)
- IT **9052-19-1**  
(nylon and polypropylene microfiber scaffolds coating by, human cell pseudointima formation response to)
- L71 ANSWER 14 OF 17 HCA COPYRIGHT 2004 ACS on STN
- 84:155621 Growth of cultured calf aortic smooth muscle cells on cardiovascular **prosthetic** materials. Eskin, S. G.; Armeniades, C. D.; Lie, J. T.; Trevino, L.; Kennedy, John H. (Dep. Surg., Baylor Coll. Med., Houston, TX, USA). Journal of Biomedical Materials Research, 10(1), 113-22 (English) 1976. CODEN: JBMRBG. ISSN: 0021-9304.
- AB The growth of cultured calf aortic smooth muscle cells on cardiovascular biomaterials was investigated, using native and oxidized polyacrylonitrile (orlon) fabrics, dacron velour, and Parylene C [9052-19-1]-coated polypropylene microfabric as substrates. By light microscopic evaluation, surface cell coverage was most complete on microfabric, followed by native orlon, dacron velour, and oxidized orlon. Native orlon supported the greatest total cell growth, as detd. by chem. extractable protein, followed by oxidized orlon, dacron velour, and the microfabric. The obsd. differences appear to be related to the pore size and fiber thickness of the different substrates.
- IT **9052-19-1**  
(polypropylene fibers coated with, as cardiovascular **prosthetic** material, aortic cultures growth on)
- RN 9052-19-1 HCA
- CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)
- \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*
- CC 63-7 (Pharmaceuticals)
- ST aorta culture **prosthetic** material; cardiovascular **prosthesis** aorta culture; fabric synthetic aorta culture
- IT Polypropylene fibers  
(Parylene C-coated, as cardiovascular **prosthetic** material, aortic cultures growth on)
- IT **Prosthetic materials and Prosthetics**  
(aorta cultures growth on)
- IT Artery  
(aorta, cultures of, growth of, on cardiovascular **prosthetic** material)
- IT Acrylic fibers  
Polyester fibers  
(cardiovascular **prosthetic** material, aorta cultures growth on)

IT 9052-19-1

(polypropylene fibers coated with, as cardiovascular  
**prosthetic** material, aortic cultures growth on)

L71 ANSWER 15 OF 17 HCA COPYRIGHT 2004 ACS on STN

81:126767 Cultured linings for vascular assist devices. Nuwayser, Elu  
S.; Mansfield, P. B.; Wechezak, A.; Kahn, R. H.; Burkel, W. E.;  
Boatman, J. B. (Abcor, Inc., Cambridge, MA, USA). Transactions -  
American Society for Artificial Internal Organs, 19, 168-74  
(English) 1973. CODEN: TAIOL. ISSN: 0066-0078.

AB A unique facility for extruding synthetic polymer microfabrics with  
individual filament diams. in the submicron region was assembled,  
and procedures developed for the deposition and propagation of  
continuous cell linings on the microfabric surfaces of cultures of  
human diploid W1-38 fibroblasts, human and bovine granulation  
fibroblasts, and fibroblasts from scarified tissue. Under given  
culture conditions, cell deposition and propagation was dependent on  
the nature and source of cells used. Human diploid W1-38 fibroblast  
cells seemed to favor C and the oxidized surfaces of nylon and  
parylene C over plain nylon.

IT 9052-19-1

(coating, for polyamide fibers, with fibroblast linings, for  
vascular **prosthetics**)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 63-7. (Pharmaceuticals)

Section cross-reference(s): 39

ST cultured lining vascular assist device; fiber polymer lining  
vascular **prosthetic**; fibroblast lining vascular  
**prosthetic**

IT Animal cell

(W1-38, linings for polyamide and polyester fibers, for vascular  
**prosthetics**)

IT Polyamide fibers

(for vascular **prosthetics**, fibroblast linings for)

IT Fibroblast

(lining for polyamide and polyester fibers, for vascular  
**prosthetics**)

IT **Prosthetic materials and Prosthetics**

(polyamide and polyester fibers, fibroblast linings for, for  
vascular assist devices)

IT 7782-42-5, biological studies 9052-19-1

(coating, for polyamide fibers, with fibroblast linings, for  
vascular **prosthetics**)

IT 24968-12-5

(for vascular **prosthetics**, fibroblast linings for)

L71 ANSWER 16 OF 17 HCA COPYRIGHT 2004 ACS on STN

79:70186 Development of block copolyether-urethane intraaortic balloons and other medical devices. Brash, John L.; Fritzinger, Bruce K.; Bruck, Stephen D. (Dep. Chem. Eng., McMaster Univ., Hamilton, ON, Can.). Journal of Biomedical Materials Research, 7(4), 313-34 (English) 1973. CODEN: JBMRBG. ISSN: 0021-9304.

AB A series of block copolyether-urethanes was developed, the mechanical properties of which can be varied over a wide range. One member of the series was tailored specifically for nondistensible intraaortic balloons (IABs) of a particular design. Several of the block copolyether-urethanes were subjected to selected in vitro and in vivo tests for blood compatibility and compared favorably with other materials. A two-stage process was developed for the fabrication of high-quality IABs from block copolyether-urethanes. This process involves dip-forming over expendable wax mandrels, followed by removal of the wax and solvent-welding the balloon to the tip and catheter.

IT 9052-19-1

(urethane polymer coating, as aortic **prosthetic**)

RN 9052-19-1 HCA

CN Poly[(chloro-1,4-phenylene)-1,2-ethanediyl] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 63-7 (Pharmaceuticals)

IT Artery

(aorta, urethane polymer **prosthetics** for)

IT Urethane polymers, biological studies

(**prosthetic** material, for aorta)

IT **Prosthetic** materials and **Prosthetics**

(urethane polymers, for aorta)

IT 9048-57-1 9048-58-2

(block, **prosthetic** material, for aorta)

IT 9052-19-1

(urethane polymer coating, as aortic **prosthetic**)

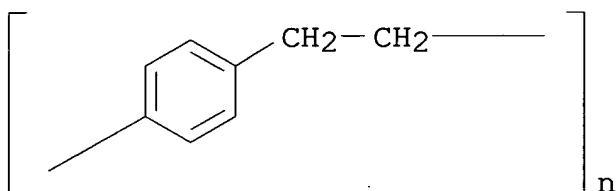
L71 ANSWER 17 OF 17 HCA COPYRIGHT 2004 ACS on STN

78:62147 Development of intimal linings. Boatman, J. B.; Pennington, C. J.; Carter, S. D.; Rotaru, J. H.; Peters, A. C. (Battelle Mem. Inst., Columbus, OH, USA). U. S. Nat. Tech. Inform. Serv., PB Rep., No. 211799, 135 pp. Avail. NTIS From: Govt. Rep. Announce. (U.S.) 1972, 72(21), 50 (English) 1972. CODEN: XPBRCA.

AB Tubes lined with a polypropylene microfabric mesh, coated with parylenes and microwave discharge treated (Union Carbide), and tubes lined with nonwoven nylon microfabric-mesh (Abcor), were coated in tissue culture with fibroblasts and overcoated with intimal cells derived from the recipient, and surgically inserted into the thoracic aorta of calves. After 7 or 14 days, tubes were removed and their inner surfaces examd. by light and electron microscopy. Bare Union Carbide tubes formed early pseudo-intimal layers of

loosely held clots with marked fibrin deposition and irregular surfaces. Cell-coated tubes resulted in more stable, dense and better organized surfaces with less surface clotting. Both tubes were accompanied by relatively insignificant or no renal infarction. Cell coating of Abcor tubes resulted in firm, well organized early pseudointima, contrasted to a bare surface of uncoated tubes. Both surfaces were accompanied by significant renal infarction, but less in animals implanted with uncoated tubes.

IT 25722-33-2  
 (tubes lined with, animal cell-coated, as artificial blood vessel)  
 RN 25722-33-2 HCA  
 CN Poly(1,4-phenylene-1,2-ethanediyl) (9CI) (CA INDEX NAME)



CC 63-7 (Pharmaceuticals)  
 ST blood vessel artificial intimal lined; **prosthetic** intimal lined  
 IT 9003-07-0 25722-33-2  
 (tubes lined with, animal cell-coated, as artificial blood vessel)

=> d 174 1-3 cbib abs hitstr hitind

L74 ANSWER 1 OF 3 HCA COPYRIGHT 2004 ACS on STN  
 138:126998 Coating process for TiNi inner support rack. Shao, Liwei; Chen, Xi (Yilai Gene Medicine Co., Ltd., Peop. Rep. China). Faming Zhuanli Shenqing Gongkai Shuomingshu CN 1327080 A 20011219, 6 pp. (Chinese). CODEN: CNXXEV. APPLICATION: CN 2000-112312 20000601.

AB The coating process comprises: (1) modifying the surface of TiNi inner support rack by plasma treatment (d.c. plasma, radio frequency plasma or microwave plasma); and (2) coating a 1-2  $\mu\text{m}$  film of C-type poly(p-xylene) on the surface of the TiNi inner support rack. The radio frequency plasma treatment is carried out by using radio frequency power of 80-100 W, Air pressure of 80-300 mmHg and 8-12 MHz frequency of the radio frequency, and treating for 5-15 min. The C-type poly(p-xylene) is prepd. by using cyclic dimer of C-type p-xylene as raw material, feeding into the **vapor deposition** device, cracking at 600-750°C and polyimg.

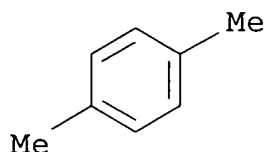
at room temp. The process can be used to improve the biol. stability and reliability of the TiNi inner support rack.

IT 25951-90-0, Poly(p-xylene)  
(coating process for TiNi inner support rack)  
RN 25951-90-0 HCA  
CN Benzene, 1,4-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 106-42-3

CMF C8 H10



IC ICM C23C014-12  
ICS C23C014-02; C23C014-24; A61L031-08  
CC 63-7 (Pharmaceuticals)  
IT **Coating process**  
Cracking (reaction)  
**Prosthetic materials and Prosthetics**  
**Vapor deposition process**  
(coating process for TiNi inner support rack)  
IT 12683-48-6 25951-90-0, Poly(p-xylene)  
(coating process for TiNi inner support rack)

L74 ANSWER 2 OF 3 HCA COPYRIGHT 2004 ACS on STN

135:51149 Mannitol/hydrogel cap for tissue penetrating anchoring means.  
Ley, Gregory R.; Hum, Larry L. (Cardiac Pacemakers, Inc., USA). PCT  
Int. Appl. WO 2001041866 A1 20010614, 34 pp. DESIGNATED  
STATES: W: AU, CA, JP; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,  
GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2.  
APPLICATION: WO 2000-US33695 20001213. PRIORITY: US 1999-459782  
19991213.

AB A helical element for insertion into tissue comprises a helical element having an insertion end, a protruding end and an open central area within the wire, rods, filaments, cables or the like that form the helix. The helical element has at least its insertion end covered by a cap of a water-sol. or water-dispersible compn. The compn. of the cap comprises a water-sol. or water dispersible component having a hydrogel mixed therein. In one embodiment, there is either a hollow area within the compn. within the open central area or the material is more porous than the remaining material. The helical element preferably comprises an elec. lead, such as a



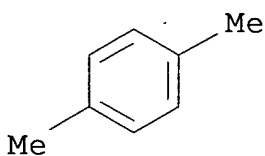
pos. endocardial lead, with an electrode (4) at the protruding or distal end of the lead. The helical element may comprise any biocompatible material with sufficient structural integrity to provide a secure attachment to tissue in a patient. Where the helical element is also to provide an active (elec. active) function, the compn. of the helical element should also be elec. conductive. A hydrogel was prepd. from acrylic acid, Na acrylate, PEG diacrylate, water, 2,2'-azobis(2-methylpropionamidine)-2HCl, 2,2'-azobis(2-methylpropionamidine) diacrylate, and Na persulfate.

IT 25951-90-0, Poly-p-xylene  
 (mannitol/hydrogel cap for tissue penetrating anchoring means)  
 RN 25951-90-0 HCA  
 CN Benzene, 1,4-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 106-42-3

CMF C8 H10



IC ICM A61N001-05  
 CC 63-8 (Pharmaceuticals)  
 IT **Prosthetic materials and Prosthetics**  
 (implants; mannitol/hydrogel cap for tissue penetrating anchoring means)  
 IT Anti-inflammatory agents  
 Antiarrhythmics  
 Antibiotics  
 Crosslinking agents  
**Medical goods**  
 (mannitol/hydrogel cap for tissue penetrating anchoring means)  
 IT 50-70-4, Glucitol, biological studies 69-65-8, D-Mannitol  
 87-89-8, Inositol 472-95-7, Laminitol 484-69-5, Ononitol  
 484-71-9, Bornesitol 488-81-3, Ribitol 523-94-4, Dambonitol  
 2152-56-9, Arabinitol 9002-89-5 9003-39-8, Pvp 9005-25-8,  
 Starch, biological studies 10284-63-6 13598-36-2D, phosphonic  
 acid, derivs. 24557-79-7, Iditol 25951-90-0,  
 Poly-p-xylene 30635-52-0, Heptitol 63976-32-9, Octitol  
 (mannitol/hydrogel cap for tissue penetrating anchoring means)

L74 ANSWER 3 OF 3 HCA COPYRIGHT 2004 ACS on STN

130:22518 Method and devices for altering the differentiation of

anchorage-dependent cells on an electrically-conducting polymer.  
Wong, Joyce Y.; Ingber, Donald E.; Langer, Robert S. (Massachusetts  
Intsitute of Technology, USA; Children's Medical Center  
Corporation). U.S. US 5843741 A **19981201**, 17 pp.  
(English). CODEN: USXXAM. APPLICATION: US 1994-283402 19940801.

AB Described is a method and cell culture system for altering the  
proliferation, differentiation, or function of anchorage-dependent  
cells which includes assocg. the cells with a surface formed of an  
elec.-conducting polymer and applying an effective amt. of a voltage  
to change the oxidn. state of the polymer without damaging the  
cells. Substrates are prepd. which are formed of or coated with an  
elec.-conducting **biocompatible polymer** which are  
used in vitro for cell culture or in vivo to aid in healing, etc.  
Examples demonstrate the effect of culturing two different types of  
cells (bovine aortic endothelial cells and Balb/c3T3 mouse  
fibroblasts) on fibronectin-coated polypyrrole conducting polymer  
substrates and the effect of applied voltage and the modifications  
possible through variation of attachment mol. d. on the conducting  
polymer substrate.

IT **96638-49-2, Poly(phenylenevinylene)**  
(as elec.-conducting polymer; method for altering differentiation  
of anchorage-dependent cells on elec.-conducting polymers)

RN 96638-49-2 HCA

CN Poly(phenylene-1,2-ethenediyl) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM C12N013-00

NCL 435173800

CC 9-11 (Biochemical Methods)

Section cross-reference(s): 63

IT **Medical goods**

**Medical goods**

(films, polymer coated onto; method for altering differentiation  
of anchorage-dependent cells on elec.-conducting polymers)

IT Drug delivery systems

**Prosthetic materials and Prosthetics**

(implants, polymer coated onto structure for; method for altering  
differentiation of anchorage-dependent cells on elec.-conducting  
polymers)

IT Apparatus

**Medical goods**

Pipes and Tubes

Plates

(polymer coated onto; method for altering differentiation of  
anchorage-dependent cells on elec.-conducting polymers)

IT **Medical goods**

(sheets, polymer coated onto; method for altering differentiation  
of anchorage-dependent cells on elec.-conducting polymers)

IT **Medical goods**

(stents, polymer coated onto; method for altering differentiation of anchorage-dependent cells on elec.-conducting polymers)

IT **Medical goods**

(sutures, polymer coated onto; method for altering differentiation of anchorage-dependent cells on elec.-conducting polymers)

IT 25067-58-7, Polyacetylene 25233-34-5, Polythiophene  
**96638-49-2**, Poly(phenylenevinylene)

(as elec.-conducting polymer; method for altering differentiation of anchorage-dependent cells on elec.-conducting polymers)

=> d 175 1-6 cbib abs hitstr hitind

L75 ANSWER 1 OF 6 HCA COPYRIGHT 2004 ACS on STN

138:309375 Application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage. Elian, Klaus (Infineon Technologies AG, Germany). PCT Int. Appl. WO 2003032086 A2 20030417, 30 pp. DESIGNATED STATES: W: CN, JP, KR, US; RW: DE, FR, GB, IE, IT, NL. (German). CODEN: PIXXD2. APPLICATION: WO 2002-DE3167 20020829. PRIORITY: DE 2001-10147954 20010928.

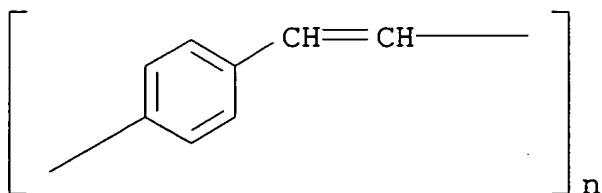
AB The invention relates to a method for producing biocompatible structures. According to the inventive method, a chem. intensified photoresist CARL (chem. amplification of resist lines) is first applied to a **prosthetic** implant substrate and is structured. The photoresist contains a first polymer comprising anchor groups for linking a biocompatible compd., and a second polymer which is electroconductive. Following the structuring of the resist, a soln. of the biocompatible compd. is applied in such a way that the biocompatible compd. is adapted to the anchor groups of the polymer. The substrate with the biocompatible anchor groups can be used as a scaffold for growing cells.

IT **26009-24-5**, p-Phenylenevinylene

(application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage)

RN 26009-24-5 HCA

CN Poly(1,4-phenylene-1,2-ethenediyl) (9CI) (CA INDEX NAME)



- IC ICM G03F007-00  
CC 63-7 (Pharmaceuticals)  
Section cross-reference(s): 9, 74  
ST CARL **prosthetic** implant substrate cell tissue engineering  
IT Biocompatibility  
Cell  
Conducting polymers  
Electric conductivity  
Functional groups  
(application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage)  
IT Amino acids, biological studies  
Peptides, biological studies  
(biocompatible substance; application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage)  
IT Electronics  
(bioelectronics; application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage)  
IT Photoresists  
(chem. amplified; application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage)  
IT **Prosthetic materials and Prosthetics**  
(implants; application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage)  
IT Engineering  
(tissue; application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage)  
IT 25233-30-1, Polyaniline **26009-24-5**, p-Phenylenedivynylene  
30604-81-0, Polypyrrole  
(application of CARL for bioelectronics and use of conductive layer for **prosthetic** implant substrate linkage)  
  
L75 ANSWER 2 OF 6 HCA COPYRIGHT 2004 ACS on STN  
138:41080 Oleophobic coated membranes. Lamon, Steven; McDonogh, Richard (USA). U.S. Pat. Appl. Publ. US 2002189455 A1 20021219, 7 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-846772 20010501.  
AB The present invention relates to oleophobic filtration media including polymeric membranes and other substrates that are coated with polymd. substituted or unsubstituted para-xylene. A method of coating such substrates with polymd. substituted or unsubstituted para-xylene is also provided. The coated substrates possess both hydrophobic (water repellent) and oleophobic (oil repellent) properties.

IT 25951-90-0, Poly-p-xylene 26283-41-0,  
Poly-monochloro-p-xylene  
(oleophobic coated membranes for sterilizable vent filters for  
medical use)

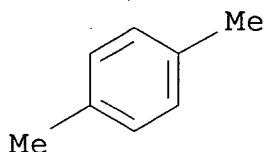
RN 25951-90-0 HCA

CN Benzene, 1,4-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 106-42-3

CMF C8 H10



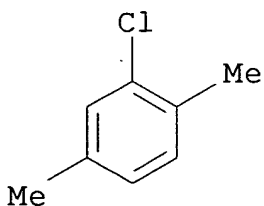
RN 26283-41-0 HCA

CN Benzene, 2-chloro-1,4-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 95-72-7

CMF C8 H9 Cl



IC ICM B01D053-22

NCL 096012000

CC 47-2 (Apparatus and Plant Equipment)

IT **Medical goods**

Membrane filtration

(oleophobic coated membranes for sterilizable vent filters for  
medical use)

IT 106-42-3, uses 25951-90-0, Poly-p-xylene

26283-41-0, Poly-monochloro-p-xylene

(oleophobic coated membranes for sterilizable vent filters for  
medical use)

L75 ANSWER 3 OF 6 HCA COPYRIGHT 2004 ACS on STN

126:306422 Flexible container or bottle or drug dispensing system with barrier coating of parylene. Boyles, James V. C.; Demel, Robert J.; Jenkins, Crystal F.; Olejnik, Orest (Allergan, USA). PCT Int. Appl. WO 9711988 A1 **19970403**, 34 pp. DESIGNATED STATES: W: AU, CA, JP; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1996-US15104 19960923. PRIORITY: US 1995-536202 19950929.

AB A flexible container elastomeric material permeable to a select drug formulation, has a layer of parylene on an inside surface of the side walls with a thickness effective as a flexible barrier to the passage of the drug formulation into the elastomeric material and adsorption of BAK preservative by the elastomeric material. BAK wt. loss of 15% wt./vol. in parylene-coated Kraton medical pouches (3.8  $\mu$ m and 7.6  $\mu$ m thickness) compared to BAK wt. loss of 75-100% in uncoated medical pouches.

IT **9055-86-1 26591-48-0**  
(barrier coating; flexible container or bottle or drug dispensing system with barrier coating of parylene)

RN 9055-86-1 HCA

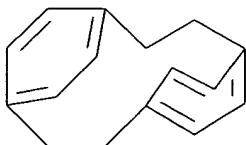
CN Tricyclo[8.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaene, dichloro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 28804-46-8

CMF C16 H14 Cl2

CCI IDS



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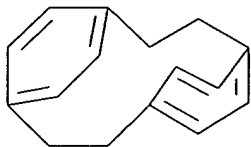
RN 26591-48-0 HCA

CN Tricyclo[8.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1633-22-3

CMF C16 H16



IC ICM C08J007-04  
ICS B65D023-02

CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 38, 63

IT **Medical goods**  
(drug delivery pouch; flexible container or bottle or drug dispensing system with barrier coating of parylene)

IT 9052-19-1 9055-85-0 **9055-86-1** 25722-33-2,  
Poly(1,4-phenylene-1,2-ethanediyl) **26591-48-0** 52261-45-7  
(barrier coating; flexible container or bottle or drug dispensing system with barrier coating of parylene)

L75 ANSWER 4 OF 6 HCA COPYRIGHT 2004 ACS on STN  
122:64486 Polyxylenes as coating agents for tubes in medical uses.  
Kamyama, Akira (Izumo Gomu Kogyo Kk, Japan). Jpn. Kokai Tokkyo Koho  
JP 06277239 A2 **19941004** Heisei, 3 pp. (Japanese). CODEN:  
JKXXAF. APPLICATION: JP 1993-71988 19930330.

AB Heat- and drug-resistant poly(p-xylene), poly(monochloro p-xylene),  
and poly(dichloro p-xylene) are suitable as coating agents for hoses  
in medical and dental equipments. The coated tubes are safe for  
sterilization, therefore are durable.

IT **25951-90-0**, Poly(p-xylene) **26283-41-0**,  
Poly(monochloro p-xylene)  
(heat- and drug-resistant coating agent for tubes in medical equipments)

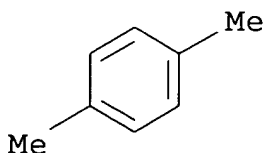
RN 25951-90-0 HCA

CN Benzene, 1,4-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 106-42-3

CMF C8 H10



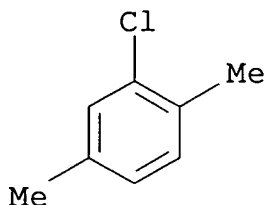
RN 26283-41-0 HCA

CN Benzene, 2-chloro-1,4-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 95-72-7

CMF C8 H9 Cl



IC ICM A61C019-00

ICS A61C017-06; A61L031-00

CC 63-8 (Pharmaceuticals)

IT **Medical goods**

(equipment, heat- and drug-resistant coating agent for tubes in medical equipments)

IT **25951-90-0, Poly(p-xylene) 26283-41-0,**  
**Poly(monochloro p-xylene) 160209-49-4**

(heat- and drug-resistant coating agent for tubes in medical equipments)

L75 ANSWER 5 OF 6 HCA COPYRIGHT 2004 ACS on STN

117:71233 Manufacture of uses of biodegradable laminated films containing a starchy matrix and a thermoplastic polymer. Bastioli, Catia; Bellotti, Vittorio; Romano, Giancarlo; Tosin, Maurizio (Butterfly S.r.l., Italy). PCT Int. Appl. WO 9202363 A1 19920220, 19 pp. DESIGNATED STATES: W: AU, BR, CA, FI, HU, JP, KR, NO, SU; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1991-EP1443 19910801. PRIORITY: IT 1990-67634 19900809.

AB Biodegradable laminated films, useful for packaging food and for colostomy containers, comprise an H<sub>2</sub>O-insol. starchy matrix consisting of degraded starch and a thermoplastic olefinic copolymer, and a 2nd layer of a hydrophobic material adhering to the 1st. A compn. comprising Globe 03401 Cerestar starch 42, ethylene-vinyl alc. copolymer 39, glycerol 12.8, H<sub>2</sub>O 3.2, and EAA 5981 copolymer 3 wt.% was extruded, pelletized, and blow-extruded into a film, which was immersed into an aq. soln. of acrylic acid-ethylene copolymer (I) and dried to give a film showing water vapor permeability (at 38° and 90% relative humidity) 390 g/30 µm/m<sup>2</sup>/24 h, compared with 1800 for a film without I.

IT **25986-98-5**

(films, laminated, biodegradable, for packaging foods and



colostomy bags)

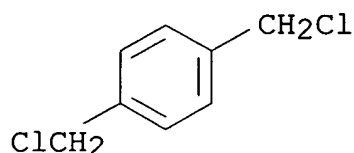
RN 25986-98-5 HCA

CN Benzene, 1,4-bis(chloromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 623-25-6

CMF C8 H8 Cl2



IC ICM B32B009-02

ICS C08L003-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 17, 63

IT **Medical goods**

(colostomy bags, laminated starch-polymer blend laminated films as, low-permeability and biodegradable)

IT 9003-39-8, Poly(vinylpyrrolidone) 9010-77-9, Acrylic acid-ethylene copolymer 24937-78-8, Ethylene-vinyl acetate copolymer

**25986-98-5** 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Lactic acid homopolymer 26221-27-2,

Ethylene-vinyl acetate-vinyl alcohol copolymer 80137-67-3

(films, laminated, biodegradable, for packaging foods and colostomy bags)

L75 ANSWER 6 OF 6 HCA COPYRIGHT 2004 ACS on STN

110:141590 Medical electrode containing an electrically conducting polymer. Schmid, Walter (Fed. Rep. Ger.). PCT Int. Appl. WO

8705814 A1 **19871008**, 27 pp. DESIGNATED STATES: W: AU,

US; RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE. (German). CODEN:

PIXXD2. APPLICATION: WO 1987-EP183 19870403. PRIORITY: DE

1986-3611146 19860403.

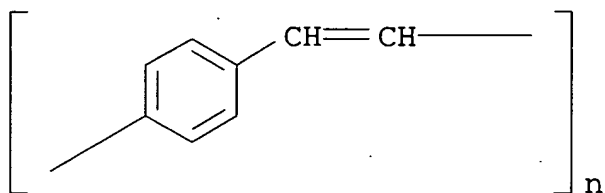
AB A medical electrode comprises or is coated with an elec. conducting org. compd. on the skin-contacting surface and need not contain a metallic layer. The skin-contacting surface of an electrode was coated 0.1 mm thick with polypyrrole contg. 30 mol % phenylsulfonate anions and having d. 1.4 g/cm<sup>3</sup> and cond. 100 S/cm. A plastic sponge impregnated with a 5% aq. PhSO<sub>3</sub>K hydrogel was applied to the polypyrrole film. The av. impedance was 103 Ω. ECG measurements with this electrode showed no base line shift or elec. noise.

IT **26009-24-5**, Poly-1,4-phenylenevinylene

(in medical electrodes)

RN 26009-24-5 HCA

CN Poly(1,4-phenylene-1,2-ethenediyl) (9CI) (CA INDEX NAME)



IC ICM A61N001-04

ICS A61B005-04; H01B001-12

CC 63-7 (Pharmaceuticals)

IT **Medical goods**

(electrodes, conducting polymers in)

IT 1518-16-7, TCNQ 3315-37-5, Methylidyne 9016-75-5, Polyphenylene sulfide 25067-97-4 25190-62-9, Poly-p-phenylene 25233-34-5, Polythiophene 25768-70-1, cis-Polyacetylene 25768-71-2  
**26009-24-5**, Poly-1,4-phenylenevinylene 27987-87-7,  
 Polydiacetylene 30604-81-0, Polypyrrole 56422-03-8, Poly(sulfur nitride) 73589-68-1 74373-36-7, cis-Polyacetylene 112869-85-9  
 (in medical electrodes)

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